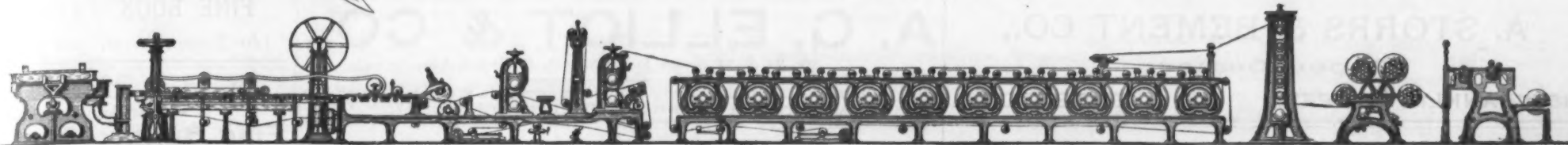


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SMITHSONIAN REPORT

THE PAPER TRADE JOURNAL.



"The Consumption of Paper is the Measure of a People's Culture."

VOLUME XXI.—NO. 50.

NEW YORK, DECEMBER 10, 1892.

WHOLE NUMBER 971.

Trade Topics.

Paper Calendering Machine.

An illustration is given of an improvement in means for insuring the introduction of the leading end of the web of paper between the bite of the successive calendering rolls of the series, and also in means for keeping the surfaces of the rolls free from adhering matter and for cooling the rolls, as may be needed.

The framework A has two bearings, C C', in which is mounted a rock shaft, a, having a forwardly extended arm, a', jointed to a rod, a'', connected to a foot treadle, a''', pivoted at a'. The rock shaft carries three arms, a'', having at their ends immediately over the roll B and near one end thereof suitable bearings for the journals a'' of one or more feed rolls, a'', which latter normally stand with their peripheries just above the periphery of the calendering roll B, but out of contact therewith.

Each arm, a'', below the rock shaft has hinged or jointed to it a narrow directing plate or finger, b, concaved to partially surround the roll B near one end, suitable weights, applied to the arms, acting not only to normally keep the feed roll or rolls, a'', elevated a little above the top of the roll B, as in Figure 2, but also to keep the directing plates pressed by gravity toward the roll B.

In practice a feed roll or series of rolls is needed at only one end of the roll B. The feed rolls co-operating with the upper calendering roll B, having engaged the web and started it forward, the web passes between the directing plates or fingers b and is by the latter directed between the nip of the rolls B B'.

The rolls B B' have co-operating with them near one end, respectively, suitable directing plates, b' b'', which are hinged, respectively, to angle bars, c' c'', the latter being extended across the machine parallel to the rolls and being attached, respectively, at their ends to the lower ends of arms 3 4, having suitable hubs or collars, which surround, but are fixed to pipes, d' d'', parallel to the rolls B B'. The directing plates b' b'', shaped as are the directing plates b, are also weighted, as at 40, the weights being sufficiently heavy to keep the said plates each pressed by the force of gravity toward the roll next to it. By hinging the directing plates to the angle bars any plate may be turned back and away from the roll next to it if it is desired to gain access to that roll—as, for instance, should the paper for any reason become clogged at that point. The machine represented has other pipes to which are fixed hubs of other like arms, 3 4, to which are connected other angle bars. Each of these angle bars carries one of a series of scrapers or clearer plates or blades, e' e' e'', the edges of which normally bear against or stand quite close to the peripheries of the calender rolls, being kept in position in a yielding manner by catches f' f' f'', which engage spring arms g' g' g'', each spring being connected by a screw, as 6, to a collar, as 7, fast on one of the pipes carrying the angle bars referred to.

The machine requires catches at only one end, and as the springs are attached to the collars fast on the pipes carrying the scrapers or clearers the latter are held with their edges against the rolls under a yielding pressure. These clearers by contact with the peripheries of the rolls prevent the accumulation thereon of any dust, dirt, lint or sizing coming from the moistened paper. To turn the scrapers fully away from the rolls for any purpose it is only necessary to move the catches f' f' f'', to release the springs engaged by them. The pipes referred to are mounted at one end in bearings in uprights h and at their other ends in bearings connected with hollow headers, and are free to turn therein. The hollow headers are filled preferably with cold air through or by an inlet pipe, and in practice the air may be supplied from any usual fan

or pump. The hollow air pipes d' d', &c., constitute supports for the clearers, and the latter constitute supports for the directing plates. These pipes have holes or openings, to be uncovered or controlled by suitable valves.

As soon as the leading end of the web has been guided between the two rolls B B' the foot of the operator may be relieved from the treadle and the feed rolls will rise. The directing plates b' b'' by their co-operation with the end of the web avoid hand manipulation preparatory to entering the web between each pair of rolls.

Trials and Triumphs of a Millwright.

Thirty-seventh Paper.

[WRITTEN FOR THE JOURNAL.]

By JAMES F. HOBART.

"No. 3 boiler is leaking again," was the greeting Tramp received one morning as he entered the mill.

"Where does it leak this time?"

"Oh, same old place—around the hand hole plate."

"All right. I'll fix it so that it won't leak again very quickly. When are you going to pull that boiler off?"

"Right away, as soon as we get up steam in No. 5."

Tramp had seen considerable trouble with the hand hole and man hole plates of all the boilers during the time that he had been in the mill, and had only lately got down to the wherewithal of the true inwardness of the business. He had found that the leaking was almost entirely caused by the plates becoming corroded, and that, in turn, the corrosion was caused by the steady running down over the plates of small quantities of water which had leaked out of the boiler around the hand hole plate owing to the poorly fitting joint.

It will be an astonishing object lesson to one who never had experience in the matter to see what a powerful corroding mixture can be formed out of plain hot water and common soot from coal. The two combined upon the surface of a boiler will soon eat away the iron to half of its original thickness. This mixture is what eats away the iron around hand and man hole plates, and it can best be prevented by making a tight joint to begin with, thus stopping the water, without which the coal soot does no harm.

Tramp found that leakage and soot had corroded the plates so that it was hard to make up a tight joint around the hand hole plates, and it was necessary to dress down the iron a little with a coarse file before attempting to make up the joint. It was not possible to do much to the iron, as there was very little chance to get at it, but by putting through the hole the shank half of a broken bastard file it was possible to work down the irregularities a little.

The surface of the hand hole plate was then thoroughly cleaned and three or four turns of common wicking were wound around it. Next a rubber gasket was selected, which fitted tightly against the wicking. It doesn't pay to fool around trying to cut out rubber gaskets in the form of ellipses for either man or hand holes, as they can be bought already cut out, of any desired size or shape.

The face of the rubber gasket (where it was to go against the boiler plate) was covered with a mixture of plumbago and black oil put on fairly thick. The plate was then inserted in the boiler and the nut was

screwed up pretty tight, after which the plate was taken out again, and it could easily be seen where the holes in the iron were located, owing to the oil and plumbago not having been squeezed out so much when under pressure at these points. Then, with some asbestos shredded up pretty fine and mixed with heavy cylinder oil or tallow to hold the mineral in place until the plate was adjusted, the gasket was packed under the parts over the holes in the boiler shell. The amount of packing to be put in had to be determined by judgment, and it had to be just enough to fill the cavities in the plate.

With a plate put in in this manner Tramp had no trouble in keeping a tight joint, and the plumbago made the joint break open easily without harming the gasket, so that the same one could be used again and again. For the man hole plates it was found that a gasket of asbestos board about one-fourth of an inch thick was the best that could be used. Just before the joint is to be made up soak the asbestos in hot water until it is soft, then smear well with plumbago and oil and make up the joint. When the joint is opened, all that is necessary will be to soak the gasket in hot water again, put on

sene oil on the waste and the torch thus made was lit and pushed into the boiler through the front hand hole (the back one had not been taken out). The interior of the boiler was very plainly illuminated by the torch light, and at the back of the boiler, just forward of the back head, Tramp saw a pile of dirt and mud, which looked as if a wheelbarrow load had been dropped there.

"How's that, Mr. Engineer, for a clean boiler?" asked Tramp, as the engineer peeped into the boiler.

"Thunder! Where did all that mud come from?"

"It came," said Tramp, "from running a steam generator for nine months without cleaning it out, something that is enough to spoil any boiler. You never should allow a boiler to run for over a month without taking down the hand hole plates and washing out the shell thoroughly; and every three months at least the man head should be taken out and a man put into the boiler to scrape off any scale or other deposit that may have formed on the inside of the shell."

"Shouldn't think a man would have to go in so often."

"You shouldn't think? Well, 'sposin' you know, for once! How in creation is a man to know that the boiler is all right if he don't go into it more than once in a dog's age? This running a boiler 'by guess' doesn't pay. Every body who tries it is apt to go up some day with the typical 'three gauges of water and 60 pounds of steam,' and nobody knows why that boiler let go. Go into the boiler often and you will know when a stay bolt lets go or a brace breaks off. Perhaps one or two broken stay bolts or braces will do no harm, but keep it up till enough of them let go, and up goes the old teakettle."

"It looks as if there was something in it," said the so-called engineer, "and I believe I'll do it," and he did, and thereafter burned less coal, and the cost of repairs was also much reduced.

A friend of Tramp's has been having trouble with the large knives used on a paper cutting machine for trimming sheets or for recutting into smaller sizes. As stated, the knives have been giving trouble. They would not stand up to the work well when cutting heavy stock, especially cardboard. The knives had been ground on a wheel which had been worn down considerably, and which was originally only 18 inches in diameter. The emery wheel in question was used with water. A suspicion of the source of the knife trouble induced the manager of the mill to write to the maker of the knives and ask his advice concerning them. A reply was soon received that he (the maker of the knives) would not warrant them an hour if ground on an emery wheel. The letter further stated that a grindstone should always be used for sharpening the knives.

After this letter was received Tramp's friend was told not to grind any more of the good knives on the emery wheel, so he used a file with which to whet up the knives when they got dull, and this operation was repeated three or four times with each knife while a grindstone was being rigged up. It was decided to make use of the regular grinding machine, with the exception of the arbor and bearings on which the emery wheel was mounted. To this end a frame was made of Georgia pine, 4x6, to receive the bearings for a shaft nearly 3 inches in diameter, on which a 48-inch stone

could be hung. The frame had a girder boxed in and bolted, to which the bed of the sliding carriage of the grinder could be fastened. It was, therefore, only necessary after the stone was mounted on its shaft to bring the carriage bed in front of the wooden frame and bolt the two firmly together, both standing on the floor, and each being entirely separate and self-contained.

It was expected that the knives would stand the work better after they were ground on the stone, although just what difference that would make has not been so clearly stated that it is fully understood either by Tramp or his friend. As long as both the grindstone and the emery wheel are kept wet while cutting, it would seem that the only way in which the knife can be made to stand better by the use of the stone is in the increased thickness given the knife just back of the cutting edge when the stone is used. This is caused by the smaller wheel concaving the knife much more than is done by the large grindstone, the angle from toe to heel of the bevel being the same in both instances. In comparing the bevels cut by wheels 15 and 48 inches in diameter, the difference is considerable and the larger one leaves the knife much stronger at the point indicated above.

Should there be any other real (not fancied) difference, both Tramp and his friend would be much pleased to learn the why and wherefore of the business, and stand corrected in a matter regarding which Tramp at least is at present rather skeptical in his belief.

Testing Colors For Fastness.

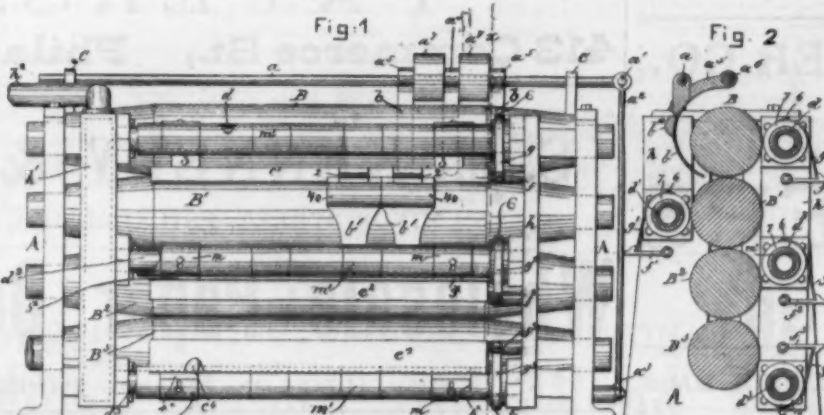
[WRITTEN FOR THE JOURNAL.]

So much has been written and talked about the relative fastness of the colors used by the wall paper maker and the manufacturer of colored and coated papers that a method simple and practical enough to be adopted as a standard by the paper trade would seem to be a desideratum. Such tests, as a rule, are only made by mills employing a chemist, or where the foreman is possessed of some expertness in this direction, and generally speaking paper makers take their chances on the colors they buy without taking the trouble to find out anything about them.

This need not be so, as there are many tests quite as simple as that described below, the use of which regularly on all purchases would give the paper maker much valuable information and save him thousand of dollars in the course of a year. There are in the market many cheap aniline lakes (and some pretty expensive ones) which are used as body colors, and are quite brilliant as a rule. They have mostly been prepared by a slipshod method of precipitating the aniline color on a flocculent mineral substance, and are simply conspicuous by their cheapness and general worthlessness, chief among which undesirable features is their want of ability to resist alkalies and sunlight. Strange to say, the owners of small mills, who make their purchases in small quantities, and who can least of all afford to be cheated, are usually the buyers of this kind of stuff, and these are the people who often attach value to such rubbish, where none is present, as a simple chemical test will easily show.

It is evident that for use in manufacturing wall and colored papers no qualities can be more important than that of permanence toward sunlight and resistance to alkalies. To test such colors (i. e., aniline lakes, &c.) the following method will be found simple, practical and efficacious: To test the resistance of any color toward alkali use a normal solution of caustic soda, of which the specific gravity is 1.046 at 15° C. One gram of the color is ground up with 10 cubic centimetres of the soda solution, and the mixture is allowed to rest for six hours. A blind experiment is also made with the same quantity of color and the same volume of a solution of sugar

(Continued on page 1108.)



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Correspondence.

Fox River Notes.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., December 5, 1892.

The week past has been made interesting to paper manufacturers in this valley by the test of two sorts of sulphite digesters with which they were previously unfamiliar. These are the Solomon Brunger digester at the Kimberly mills of the Kimberly & Clark Company, and the old deoxidized metal digester at the mill of the Badger Paper Company at Kaukauna, which has just been fitted with S. R. Wagg's patent lining. This is the first practical test which has been made of the Wagg lining, Mr. Wagg being superintendent of the mills of the Fox River Paper Company, of Appleton.

Thus far two cookings have been taken from the Solomon Brunger digester. The test seems to have been successful, the product of even the first cooking being perfectly white and of excellent quality. The lime scale formed instantly on the inside of the digester, preventing any corrosion or discoloration of the fibre. Two more digesters of the same patent have been ordered and are expected to be here sometime this month. Orders have been given to allow no visitors in the mill hereafter. The sulphite department is being completely rebuilt, and some new processes not yet patented are being experimented with by Superintendent Escott. In six months the whole system will have been changed.

The first cooking was taken off of the Wagg digester at Kaukauna at 1 o'clock this afternoon. The fibre is of beautiful quality and the digester seems to be a success. Examination showed no change in the lining. The lining is made of the acid proof tile used in the Mitscherlich digesters, but the joints are closed in a peculiar manner with hard metal alloy instead of with cement. The Badger people have given an order for lining their remaining digesters in the same way. This lining can be put into any sort of digester which shows signs of giving out, as well as in digesters originally new.

The question of procuring wood pulp is getting to be most vital with the print mills in this valley. There doesn't seem to be any in the market at any price. Nothing lower than \$1.60 per 100 is being paid, and mills cannot find it at that price. Manufacturers are scraping along as best they can, but it looks as though some would have to shut down before long for want of raw material. The general opinion is, however, that the

pressure is but temporary, and that by the first of the year pulp will be obtainable as before. The water has not gotten low enough to cause all the mischief, most of which must be ascribed to other and, temporary causes. Whatever the cause however, the result is very apparent, and a lively begging and borrowing is going on to keep the engines turning.

The Wisconsin River Paper and Pulp Company started its second paper machine about two weeks ago and it is running along in a very smooth and satisfactory manner, the mill producing about 20 tons of print paper per day. This company has lately increased the capacity of its wood pulp department 50 per cent. by putting in four more of the largest size "New England" grinders. It is now making about 24 tons of wood pulp daily.

The brickwork of the main buildings of the Plover Paper Company's plant on the Wisconsin River will be up and ready for the roofs this week. The machine building and boiler house are now completely inclosed. The stonework in the wheel pits is also finished. None of the machinery has yet arrived.

The dimension work on the big addition to the Neenah Paper Company's mill is completed and interior arrangements are now being attended to.

The roof timbers of the rag department building of the new mill of the Fox River Paper Company, in this city, are now being put in place, the brickwork having at last been completed. Two of the steam boilers have arrived from Hamilton, Ohio, and are now being put in place.

The scheme for a straw wrapping mill at Menasha, which was referred to in these columns several weeks ago, seems to have fallen through. It will probably not be heard from again for the present.

The stone flume and foundations for the new pulp mill being erected in this city by the Messrs. Van Nortwick are completed, and the frame of the building is now rising above them. The product will be in demand as soon as it can be produced.

The Badger Paper Company, of Kaukauna, has called in all its agents in the wall paper department, the output for the year being secured. The fifth machine has lately been put in and is now in operation.

The statistics of navigation on the Fox River, just issued, show that 1,173 boats passed up and down the river during the year just closed.

The new residence being erected in Neenah by F. C. Shattuck is now plastered and ready for the interior finishing. The walls of the new stone residence of Mrs. C. B. Clark are up as high as the

second story. The house will cost \$40,000 and will be one of the finest in Neenah.

Albert Gilbert, of Menasha, will depart this week on a vacation visit to the State of Mississippi.

Charles Wilson, of Minneapolis, was in town last week on business. He has lately sold 208 horse power of Babcock & Wilcox boilers to the Ishpeming and Negaunee Street Railway Company. Mrs. Wilson and her two sons arrived last summer from England and all are now pleasantly located at Minneapolis.

H. T. Bartow was in town several days a week ago. He is now with Charles D. Brown & Co., of Boston, and has had a very successful trip. His firm is about to add to its business the sale of chemicals and all sorts of mill supplies.

C. F. Wilson, of Albany, was a recent visitor to this valley.

FOX RIVER.

Miami Valley Notes.

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, December 9, 1892.

All of the mills in this great paper producing section of the world are busy, and I do not exaggerate a whit when I put it "rushed." The manufacturers for the past several months have not known what it was to wish for fat orders. They are still coming in unsolicited, as many traveling salesmen have been withdrawn, with nice salaries running on just the same. While there is necessarily continued activity in the mills, the past fortnight from other standpoints has been one of the dullest of the season.

Paper stock dealers are likewise in the vortex of a commercial whirlwind, while the paper novelty men are handling treble the business they handled the previous year.

At the end of the year 1892, when the books are balanced, many of the manufacturers will be astounded at the growth of their business. A résumé will show a phenomenal fiscal year, one of unlimited prosperity.

All of the preferred stock of the Stillwell-Bierce & Smith-Vaile Company, lately consolidated, has been taken. The \$500,000 on the subscription books was grabbed by discreet financiers and stable business men. Subscriptions placed on the books amounted to \$1,000,000 in a short time, and as a consequence many were refused.

The adjustment of the losses occasioned by the fire at the Tytus Paper Mill at Middletown equalled the report of the loss first given publicity. Work at repairing has been progressing with satisfactory haste. Fires are never welcome in a paper mill.

They seem to visit the Miami Valley when the wheels of machinery are wanted to run the fastest. Conflagrations and cyclonic visitations have been the unwholesome diet of the mills hereabouts this summer and fall.

The projectors of the proposed new fine writing paper mill for Dayton, when again seen this week, stated that they had not yet liberty to talk. When the plans are fully formulated and matured interesting facts will be given. The mill is a certainty and will be the third of its kind in this valley. The other two are owned by the Harding Paper Company. Two of the originators of the new Dayton mill are prominent blank book manufacturers, W. W. White and Thos. B. Reynolds, who recently built a large new factory in the eastern part of the city.

As the new year approaches several newspaper enterprises are being cast upon the uncertain waters.

The *News-Citizen*, of Oxford, has been enlarged into a metropolitan sized sheet.

There is talk of the *Evening Press* merging into a bigger paper, while a rumor that the Cincinnati *Commercial Gazette* intends establishing a plant here needs verification.

Buzz, a humorous weekly on the order of the New York humorous press, has been started humming in Dayton by L. G. and E. S. Reynolds, blank book manufacturers. They undoubtedly will make a success of their new departure. The artistic work is the result of *Life's* best men.

Ed. B. Weston's "Columbia" cutter is having a large and well merited sale. The invention is ingenious and designed to make the machine grow in popular favor.

The Franklin Paper Mill employees turned out en masse to participate in a jollification meeting this week. They were a little late.

Truly this has been an "oyster year." Up to date Dayton novelty dealers have been in big oyster pail orders up to their ears.

W. J. Aull, of the firm of Aull Brothers, paper dealers, is now off on his Southern tour. He found his Western trip fraught with interest to himself and his company in the way of orders.

In all probability the twine factory at Middletown will add more men to its force and increased facilities will be made. The factory is enjoying a substantial boom.

Two weeks ago a horse and buggy belonging to W. M. Mills, vice-president and general manager of the Dayton Globe Iron Works, was stolen by a dishonest colored servant in his employ. It has now developed that the thief sold the "rig" to a well-

known liveryman in consideration of the exchange of a watch.

Joe Hickman, formerly connected with the Ohio Paper Company, Miamisburg, has accepted a situation in the White Line Power House, this city.

Thanksgiving Day left many shining memories of pleasant events. All of the paper mills in this valley were closed down.

Men directly and indirectly interested in the paper trade were counted by the dozens at the great championship football game between the Dayton and Otterbein University clubs the other afternoon. R. R. Dickey, secretary of the Dayton Globe Iron Works, played his position as quarterback well, making timely passes. His clever interference saved the local team.

In the death of their little daughter, Alice, Mr. and Mrs. Charles Harding, of Franklin, are deprived of the sunshine of their home. This has been the second death in the family lately, and all of Mr. Harding's friends in the paper trade extend their sympathies.

Alexander Ure, aged sixty-nine years, for thirty-five years a faithful employee of the Oglesby Paper Company, of Middletown, died suddenly of heart failure last week. The funeral was largely attended by his brother workmen.

W. E. Crume, of the Crume & Sefton Paper Novelty Company, was one of the appraisers in the late change of the Stillwell & Bierce Company.

Considerable thieving in the Gardner and Tytus paper mills has been going on at Middletown for some time. The night prowlers steal machine pockets, brass valves and other articles of more value to the mills than to themselves.

Albert Strong, of Black & Clawson's, Hamilton, who let a heavy weight fall upon his right foot the other day, is improving, although the foot is badly mashed.

"Ben" Mills had two fingers fearfully mangled in a machine at the strawboard mills in this city this week.

A manufacturer of heavy paper here seems to think that the decision of the English Court of the Queen's Bench, that grocers may weigh paper with coffee, sugar, tea, &c., without being guilty of fraud, carries more weight than the average dealer thinks. Extra heavy paper will be in great demand in England.

Several paper men of means in this city are interested in a carbon manufactory now under construction at Noblesville, Ind.

A number of the paper manufacturers of Dayton complain with pronounced vehemence of the poor service afforded them

THE GLEN MFG. CO., 244 WASHINGTON STREET, BOSTON, **THE HAVERHILL PAPER CO.**
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PERKINS, GOODWIN & CO.,
Nos. 66 and 68 DUANE STREET, NEW YORK,
Have on hand and to arrive all grades of Bleached and Unbleached
SULPHITE AND SODA PULPS. SEND FOR SAMPLES AND PRICES.

for shipments. All of the railroad companies are busy, and are even running engines secured from other roads, but they cannot accommodate all. This unfortunate circumstance heaps expense and inconvenience on the manufacturers.

Chas. D. Mead's Chillicothe mill was closed down one day this week on account of delay in shipments of material occasioned by the crowded condition of the freight yards.

Samuel Blau, of the paper stock firm of M. Blau & Sons, visited the paper men in the southern part of the valley the past week. They all greet Mr. Blau with cheerfulness, recognizing his social and business qualities.

George Kimberly, of the Kimberly & Clark Company, whose interests are scattered throughout the North, was in the valley the past week.

The complaint of low water among paper mill men has become distinct and painfully audible in this valley; but the cry is general, reports from all over the country being identical with those sent out from this section. It will be only a question of time until electricity as a motive power will replace nature's scanty flow. Coal, however, will not be entirely shoveled to the rear in this city. The fall of water in Dayton is only a few feet and the mills depending on it are equipped with engines.

The Ohio Valley Paper Mill, at Amanda, is getting ready to make tissue paper. The manufacture of tissue paper, like that of fine writing paper, is decidedly limited here.

The day force of the Dayton Paper Novelty Company, which also works until 10 o'clock at night, was given one week's night work off to rest. The work is straining upon the men, although they are benefiting themselves in a financial way.

At least thirty railroad men, representing the heads of the freight departments of as many roads, happened in Dayton the other day. They came from all parts of the country and, singularly, unknown to themselves for a time, were all bent on the same business. The bait was a consignment of freight from the Stillwell & Bierce Company to Texas. Too many irons were in the fire, but only one became red hot. Twenty-nine of them were as cold as icicles. M.

St. Louis Notes.

[FROM OUR REGULAR CORRESPONDENT.]

ST. LOUIS, Mo., December 6, 1892.

Your correspondent being absent from the city at the time and immediately after the death of Mr. Lockwood could not repeat earlier the sentiments of sincere regret expressed by the local paper world at the departure of one whose life was devoted to fostering and advancing every interest of the trade and whose influence was perhaps more potent for its good than that of any other man.

This recognition of his power and purpose is entirely aside from the admiration of those who knew him personally and who had felt the influence of his personality. It comes from all whose interests he shared and forwarded; from the paper dealer, the stationer and the printer, each vying with the other in paying tribute to his memory.

At a recent meeting of the St. Louis Typothetae, after appropriate eulogistic remarks from various members, the following resolutions were adopted:

That it is with unfeigned sorrow that we learn of the death of Mr. Howard Lockwood, publisher of the *American Bookmaker*; a prominent member of the New York Typothetae and a faithful representative in the United Typothetae of America, where for six years he has rendered valuable service in giving character and tone to the organization.

That this report be spread upon our records, and a copy of the same be furnished for publication in our trade journals.

The volume of business is better than during the lull following the election; in fact St. Louis can indulge in no end of self gratulation over its increasing prosperity and growth. Of this there is no surer evidence than the bank clearings, which last week broke all local records by reaching the princely amount of about \$30,000,000.

Great sympathy is expressed for T. O. Sawyer, of the paper company bearing his name, at the death of his daughter, just reaching womanhood. Sickness in the shape of typhoid fever, which is very prevalent, but fortunately of a very mild type, has invaded all of the paper houses of late.

I see an item on its rounds throughout the country announcing the loss by the Graham Paper Company of \$25,000 by fire

in its paper warehouse. The facts are as follows: There was a small fire about two blocks distant from Graham's rag packing house, but at no time did it occasion the slightest alarm. This rag warehouse is about 2 miles distant from the paper jobbing department.

Amid the direful rumors of no rags, no bleach, no water, no more cheap paper, &c., which fill the papermaker's horizon, comes a ray of hope, not much larger than a man's hand, but still something to tie to, in the statement that a Chicago firm has discovered that wood pulp is an admirable substitute for sheepskin in the manufacture of banjos. It adds: "The tone leaves nothing to be desired." This happy assurance is indeed a sustainer.

Since my last letter this market has been visited by Mr. Kimberly, Jr., of Wisconsin; Mr. Darwall, of the New York and Pennsylvania Company, New York; Mr. Swain, of the Whiting Paper Company; Mr. Krueger, of the Western Coated Paper Company; Mr. Castle, of the Beebe & Holbrook Company, and Mr. Mohr, of Reading, Pa.

Arthur Hill, of the Holyoke Envelope Company, has been visiting Mr. Pirie, of the St. Louis Paper Company.

"Ben" Brown, of the Dickinson Paper Company, and H. M. French, of the Graham Paper Company, have recently returned from the Fox River country. D.

Holyoke Notes.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., December 8, 1892.

City politics have occupied the attention of most of our citizens during the past two weeks, and we have just emerged from one of the hottest municipal campaigns ever waged in the city. Dennie L. Farr, who has long been identified with one of the largest manufacturing concerns in the city, was elected mayor by a majority of nearly 1,000.

Business has not changed very much since last week and the volume of trade is about the same as that of a year ago. Most of the manufacturers could handle more orders very comfortably, but the fine writing and book mills are fairly well supplied. Prices are unchanged and the ruling figures

have been well adhered to. There is still some talk of a shut down of the fine mills, but nothing definite has been done about it. A few manufacturers met recently and talked the matter over, and another meeting may be held soon to take some action. It is barely possible that another advance in prices may be decided on, but thus far it has been discussed only and nothing may come of it. The shut down, in case it is ordered, will not last over ten days.

The suit of Frank H. Smith, formerly bookkeeper for the Judd Paper Company, against the Connecticut River Railroad Company, which has been on trial a week before the Superior Court, was finished this week and the jury returned a verdict of \$20,000 for Mr. Smith. This case has attracted a great deal of attention, and it was a hard fought legal battle. The railroad corporation has asked for another trial, but it is likely that a settlement will be effected before it will begin.

It has been rumored on the street for a number of days that Postmaster Prescott, who has held his position for thirty years, will resign on January 1, to become treasurer of the Nonotuck Paper Company, in which he is interested. Mr. Prescott does not deny or confirm the rumor.

Several paper makers were elected to various city offices on Tuesday. William Reardon, superintendent of the Albion Paper Mill, was elected a school committee-man at large; A. W. Esleeck, treasurer of the Beebe & Holbrook Company, will serve Ward Seven in the school board; David Toole, Patrick Gere and C. M. Hartzel, employed by the Albion and Parsons paper companies, will serve in the common council.

The James Ramage Paper Company has just made its corporation return as follows: Fixed capital, \$85,000; capital paid in, \$85,000. Assets—Land and water power, \$27,000; buildings, \$21,000; machinery, \$27,000; cash and debts receivable, \$45,573; manufactures and merchandise, \$21,801; total, \$152,464. Liabilities—Capital stock, \$85,000; debts, \$37,804; profit and loss, \$29,659; total, \$152,464.

George W. Herring, aged eighty, a veteran master mechanic, died at the home of his daughter last week. He received a stroke of paralysis some time ago and

never recovered from its effects. He leaves a son and a daughter.

Euclid Smith, employed by the George C. Gill Paper Company, was badly injured early this week by having his arm caught in the dusters.

William Bowers, an employee of Buchanan, Bolt & Co., wire weavers, received the welcome intelligence, a few days ago, that he has fallen heir to \$25,000. The property is located in Scotland and Bowers will soon leave for his native land to take possession. He is a worthy man and will make good use of his new found property.

The mill owners at South Hadley Falls have expended about \$200,000 during the past year on improvements. The Carver Company has put out about \$150,000, and the capacity of the mill is very nearly doubled. The Hampshire Company's new stock house cost about \$8,000, and considerable room has been gained by its erection.

The Whiting Paper Company has ordered about 750 copies of the new work, "Picturesque Hampden," which will be distributed among its patrons. An edition of 10,000 small books containing the article most interesting to the company will be furnished. The book will be illustrated by handsome half tone pictures.

The Valley Pump Company, of Easthampton, has just set a large pump having a capacity of 500,000 gallons a day in the mill of the Mount Tom Sulphite Pulp Company. This company is at present shipping sixteen carloads of fibre a week. The business has steadily increased since the mill began operations.

The Parsons Paper Company has decided to erect another business building on Main street. It will contain two stores.

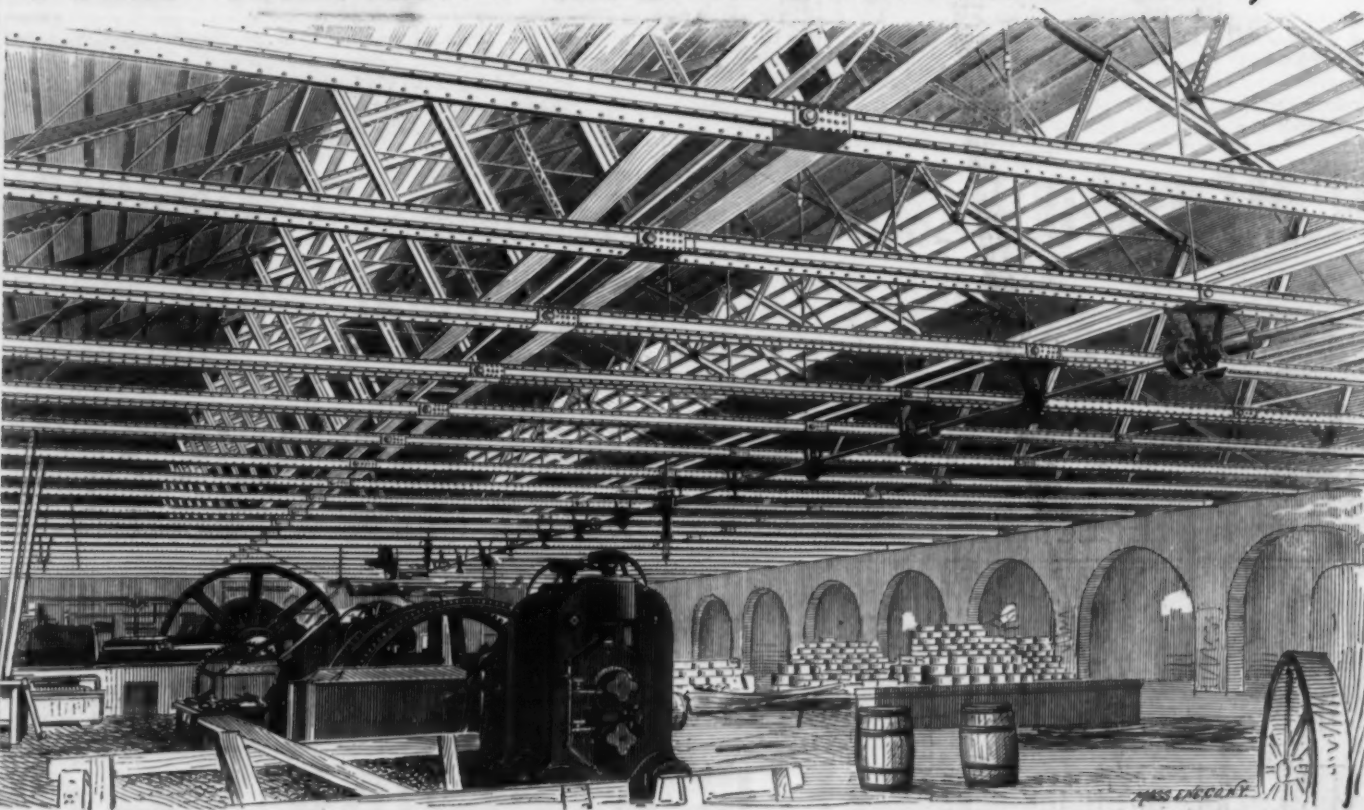
Architect A. B. Tower is making a business trip through Maine this week.

Samuel Snell has the contract to furnish the drainer bottoms for the new Riverside Paper Mill.

W. F. Whiting and wife had a very pleasant wedding reception last evening at the Hon. William Whiting's residence on Elm street. Many Holyoke people and a number from other cities were present. The rooms were very tastefully decorated and it was an enjoyable affair. H.

CHAS. M. JARVIS, Pres. and Chief Engineer.
BURE K. FIELD, Vice-President.
GEO. H. BAGGS, Secretary.
F. L. WILCOX, Treasurer.

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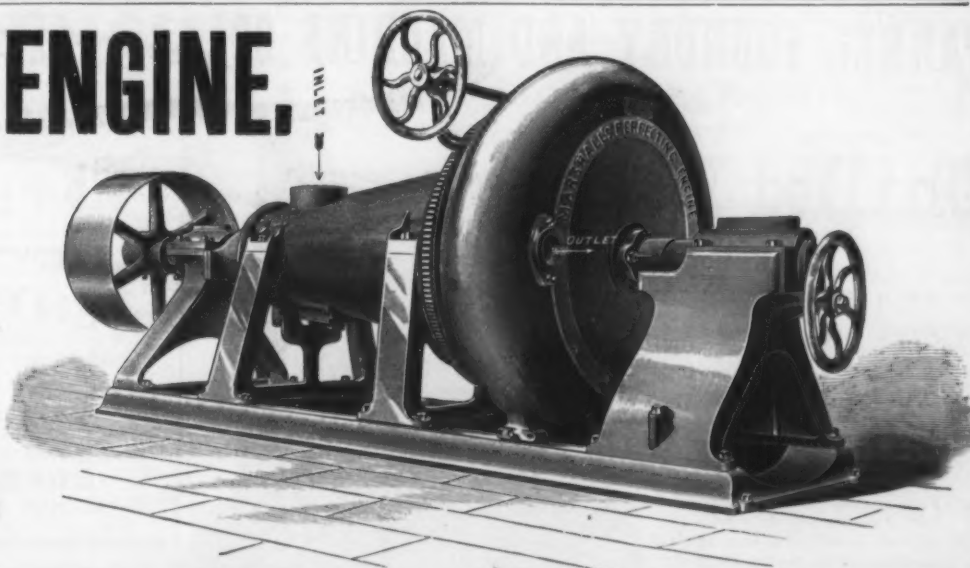
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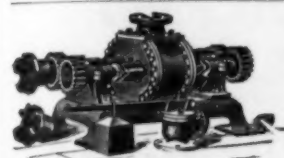
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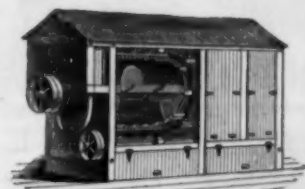
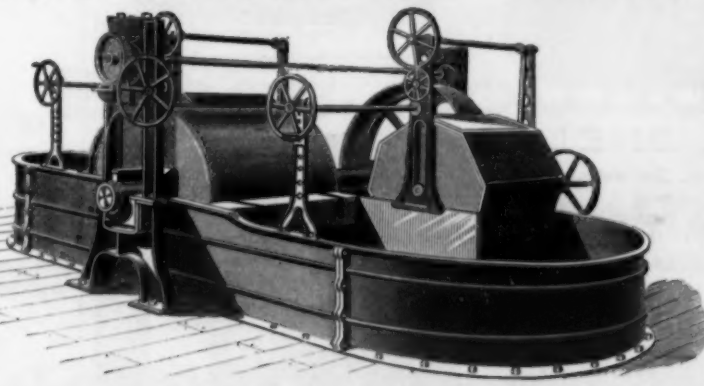
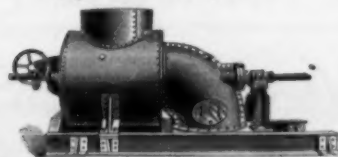
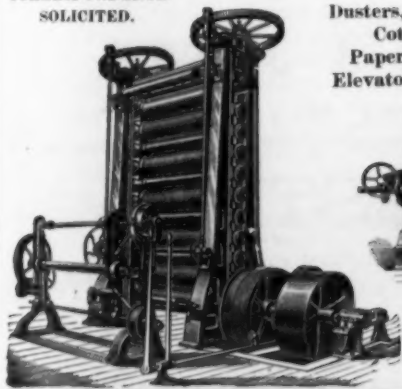


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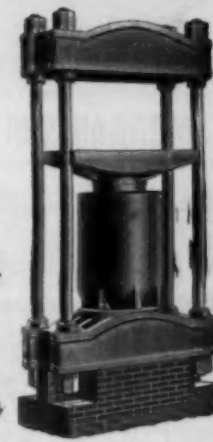
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G. W. KNOWLTON, Pres.

Office of THE ONTARIO PAPER CO.,
WATERTOWN, N. Y., August 12, 1890.

JOHN A. DECKER, Supt.

THE BAGLEY & SEWALL CO.:

GENTLEMEN—The following is the record of the 86 inch wire Fourdrinier Machine purchased of you for the past week:

August 4, . . . 24,335 lbs.	August 6, . . . 24,020 lbs.	August 8, . . . 23,337 lbs.
August 5, . . . 23,390 lbs.	August 7, . . . 24,010 lbs.	August 9, . . . 24,865 lbs.
Average per day, . . . 23,992 lbs.		

These figures are the net shipping weight of the paper, averaging 31 lbs. to the ream, 24 x 36 in.

Yours respectfully, E. B. STERLING, Sec'y.

FRONTENAC PAPER CO.,

DEXTER, N. Y., August 20, 1890.

BAGLEY & SEWALL CO., WATERTOWN, N. Y.:

GENTLEMEN—At 8:30 to-night our machine tender shut down to put on a NEW FIRST FELT. The paper was off the reel less than ELEVEN MINUTES. It cannot be done on any other make of machine than the BAGLEY & SEWALL.

Hastily,

F. W. SPICER, Sec'y and Treas.

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—I have recently acquired the entire business of THE NEW ENGLAND PULP MACHINE CO., including also the business of the late SCOTT & ROBERTS CO., and shall continue to manufacture the celebrated

"NEW ENGLAND" WOOD PULP GRINDER,

which has a record of making 9,520 pounds fine pulp, dry weight, in twenty-four hours, with 250 horse power; 28,000 pounds good news pulp, dry weight, in twenty-four hours, with three grinders, using 750 horse power; 84,000 pounds news pulp in twenty-four hours, with eleven grinders, using 2,150 horse power. Can be seen in operation daily.

Has displaced over 100 other pulp grinders, including many of the well-known popular kinds, among which are the Northwestern, the Voelter, the Mills, the Allen & Jones, the Eilers, the Trevor, the Taft, the Watertown, the Frambach, the Dilts, the Millard, the Curtis and others, while NO "NEW ENGLAND" GRINDER has ever been displaced by any other kind. Ten different styles of grinders, each adapted to its own special work.

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Kane's Falls Pulp Co., Fort Ann, N. Y.
Umbagog Pulp Co., Livermore Falls, Me.
Marion Pulp Co., Marion, Ind.
Hon. Wm. A. Russell, Boston, Mass. (2 orders).
Nova Scotia Pulp and Paper Co., Mill Village (3 orders).
G. H. P. Gould, Lyons Falls, N. Y.
P. C. Cheney Co., East Tilton, N. H.
National Metal Edge Box Co., Hensboro, Vt.
Battenkill Paper Co., Middle Falls, N. Y.
Lake Umbagog Wood Pulp Co., Sunapee, N. H.
Bennington Valley Pulp Co., North Bennington, Vt.
Westmoreland Paper Co., West Newton, Pa. (3 orders).
Winthrop Paper Co., Franklin, N. H.
Alvin Record, Livermore Falls, Me.
Augusta Pulp Co., Augusta, Me.
P. C. Cheney, Manchester, N. H.
J. C. McIntire, Fort Ann, N. Y.
Kennebec Fibre Co., Benton, Me.
Carabasset Pulp Co., Skowhegan, Me. (2 orders).
Richards Paper Co., Skowhegan, Me.
Salmon River Paper Co., Malone, N. Y.
Port Leyden Pulp and Paper Co., Port Leyden, N. Y.
Rochester Paper Co., Rochester, N. Y.
Saranac River Pulp and Paper Co., Cadyville, N. Y. (2 orders).
Piscataquis Falls Pulp and Paper Co., Montague, Me.
Glens Falls Paper Mill Co., Glens Falls, N. Y. (3 orders).
Marinette and Menominee Paper Co., Menominee, Mich.
Smith Paper Co., Lee, Mass. (3 orders).

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Goddard Wood Pulp Co., Wendell Depot, Mass.
Atlas Paper Co., Appleton, Wis.
Kimberly & Clark Co., Kimberly, Wis.
Farley Paper Co., Irving, Mass.
Fonda Lake Paper Co., Port Leyden, N. Y.
Mason-Perkins Paper Co., Bristol, N. H.
Buckingham Pulp Co., Buckingham, Canada.
Godfrey & Clark, Pittsburg, Pa.
Eau Claire Pulp and Paper Co., Eau Claire, Wis. (3 orders).
Hartford Pulp Co., Hartford City, Ind.
Glen Manufacturing Co., Berlin Falls, N. H. (3 orders).
James Dwy, Thorold, Canada.
Tomahawk Pulp Mills, Tomahawk, Wis. (2 orders).
John E. Walker, Skaneateles, N. Y.
Kokomo Wood Pulp Co., Kokomo, Ind. (2 orders).
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The Geo. H. Friend Paper Co., West Carrollton, O.
Sebago Wood Board, South Windham, Me.
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Herkimer Paper Co., Lyons Falls, N. Y. (3 orders).
Susquehanna Water Power and Paper Co., Conowingo, Md.
Fall Mountain Paper Co., Bellows Falls, Vt. (4 orders).
Adirondack Pulp and Paper Co., Malone, N. Y. (3 orders).
DuPont Paper Mill Co., Louisville, Ky. (3 orders).
Crescent Paper Manufacturing Co., Hartford City, Ind. (2 orders).
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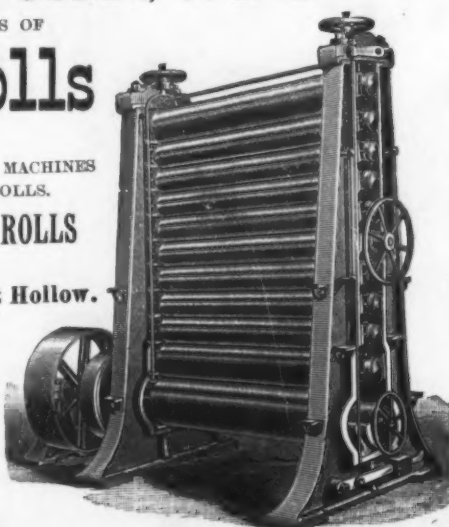
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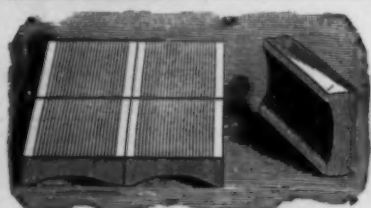
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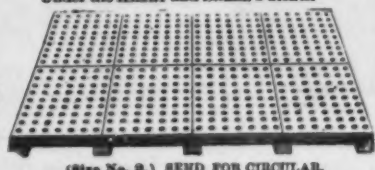
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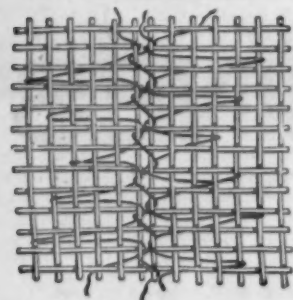
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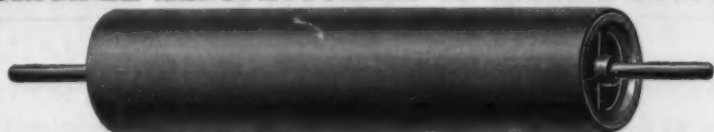
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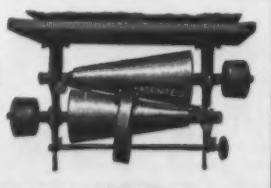
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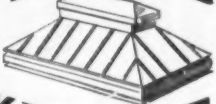
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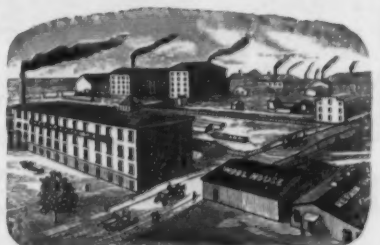
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—MANUFACTURERS OF—

Pillar Copperas, Venetian Red and Oxides of Iron,

WORCESTER, MASS.

Boston Notes.

[FROM OUR REGULAR CORRESPONDENT.]

EASTERN OFFICE PAPER TRADE JOURNAL,
67 Federal Street,
BOSTON, December 8, 1892.

Concerning the paper business, per se, there is little of general interest calling for comment this week.

Nor is there much of importance in the kindred lines to work up into newsy reading.

To report on the paper stock market it becomes necessary to repeat an oft-told tale. The market is unchanged and is still subject to the prohibition of rags from cholora ports in Germany and France. A fair trade is being done in a quiet way. Foreign markets are reported firm with an upward tendency. Domestic rags hold firm at ruling quotations.

An Inquiry Into the Transmission of Infectious Diseases Through the Medium of Rags, is the title of a pamphlet just issued by the American Paper Manufacturers' Association. Secretary W. T. Barker is mailing this pamphlet to every paper manufacturer in the country.

The publication contains a great deal of information on the rag question which paper manufacturers ought certainly to know.

Harry Bartow has got back to headquarters from a business trip West in the interest of Charles D. Brown & Co., with which firm he recently became connected. It is hardly necessary to say that Mr. Bartow met with success, which seems always to precede him, and all that he has to do is to follow it up closely.

Mr. Day, of Day & Morgan, Haverhill, N. H., was seen in town this week. Day & Morgan are the new proprietors of the tissue mill formerly run by E. N. Cummings, of Haverhill, N. H., they having purchased the property some six weeks ago.

Other recent trade visitors were Charles R. Milliken, of Portland, Me.; K. B. Fullerton, E. H. Watson and Frederick Bertuch, of New York; Hon. E. H. Morgan, of Springfield, Mass.; Edward Arms, of Bellows Falls, Vt.; ex-Governor Cheney, of Manchester, N. H.; E. L. Stanwood, of Otis Falls, Vt.; Adna T. Dennison, of Portland, Me.; H. A. Emerson, of West Haverhill, N. H.; Charles Chapin, of Springfield, Mass.; Charles Keith, of Worcester, Mass.; James Brigham, of East Castle, Conn.; Dr. Howard, of Bridgewater, Mass.; Byron Weston, Jr., and John Carson, of Dalton, Mass.

J. C. De Coster, formerly assistant to the Poland Paper Company's New York agent, has moved over to Boston to represent the company in this market. Mr. De Coster takes the position filled for a couple of years past by E. W. Teele.

Mr. Teele does not retire from the trade, however. He will continue in the paper business as dealer, and has taken chamber No. 607 in the big Hancock Building on Federal street.

Henry B. Dennison has retired from the presidency of the Dennison Manufacturing Company, of this city, and has arranged to spend a year with his family in foreign lands.

Frank Comins, manager of the United States Air Moistening and Ventilating Company, of Providence, R. I., was seen in town last week, and reported a very good demand for his "Aerophor" paper dampener. Quite a number of these devices have been placed in paper mills during the past year, and orders still come to hand with encouraging frequency. Many of the most prominent mills are now using the "Aerophor," and the best evidence of its merits as a paper dampener is shown in the number of reorders given for the "Aerophor."

Richard Smith, of calendar feed fame, returned to town last week after a two months tour of the Western paper mills. During his travels Mr. Smith visited the Miami Valley, the Fox River district and other paper making sections of the distant West, and had success, for he it known that Mr. Smith was after orders for agitators and "feeds." Several orders for feeds and numerous orders for agitators were secured. Four agitators were ordered by the Van Nortwicks for their new mill at Combined Locks, Wis., and two feeds for the two new machines recently built by the Black & Clawson Company, the other two machines of this company being already equipped with Smith's pneumatic calendar feeds.

At the meeting of the Boston Paper Trade Association, which will be held on Wednesday evening, December 14, at the Brunswick, the following named gentlemen are announced as guests of the association: Curtis Guild, Jr., of the Commercial Bulletin, and Charles E. Adams, president of the Massachusetts State Board of Trade. The Boston Ideal Banjo, Mandolin and Guitar Club will furnish the music. Dinner will be served at 6:30.

The annual meeting of the stockholders of the Boston Belting Company was held at the Meionan yesterday. All of the officers were re-elected, with Director James Ben-

nett Forsyth as manufacturing agent and general manager of the company. It was voted to increase the capital stock from \$700,000 to 1,000,000. DELESNERIER.

Philadelphia Notes.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., December 8, 1892.

The excitement of the week was furnished by the burning of the Public Ledger Building, at Sixth and Chestnut streets. Everybody in the United States knows of Geo. W. Childs, the great and modest philanthropist, and of his great paper, popularly known as the Philadelphia Ledger. The building is of brown stone, five stories high, and although the walls are intact, the inside has been pretty thoroughly gutted. Every newspaper in the city on learning of the Ledger's misfortune promptly placed its plant at Mr. Childs's disposal, and the paper appeared promptly on time from the Record's press. It contained, besides the account of its misfortune and the regular grist of trustworthy news for which the paper is celebrated, President Harrison's Message in full. This morning the paper was printed on the presses which only yesterday lay under 10 feet of water in the basement of the burned building. The losses are figured at \$200,000, divided as follows: Loss on the building, \$100,000; on furniture and other articles, \$25,000; estimated damage by water to presses, machinery, &c., \$25,000; losses of tenants in the building from fire, water and smoke, \$50,000. The insurance on the building is \$160,000, in thirty-six companies; on the contents, \$80,000, divided among twenty-six companies, in amounts running between \$2,500 and \$5,000. It was characteristic of the owner that while the fire was in progress he should think of the firemen and

others at work and give orders to a neighboring restaurant to supply them with all the refreshments they wanted, at his expense, and to send this morning a check for \$5,000 to be divided among the firemen and \$1,000 for the policemen who helped in the work.

Chas. M. Stoeve & Co. are said to have had a stock of paper stored in the building, but it was fully insured.

The Glen Mills Paper Company is now manufacturing the "Willcox Waterleaf" for making parchment paper. Mr. Willcox is no longer connected with the business, although a brother, William, is a member of the firm of S. M. Kennedy & Co.

C. S. Garrett & Son, whose mill near Coatesville was damaged by fire a short time ago, are at work repairing the damage. The burned part was a wooden structure which was not touched when the mill was built last summer. It contained a lot of raw stock and the rotary boiler. The mill will be running again in a few weeks, and the frame structure may be replaced by a stone building.

It is reported that C. A. Rudolph's parchment mill, at Manayunk, and the Segal Manufacturing Company's parchment mill, in Camden, are temporarily shut down.

S. M. Kennedy returned to-day from a visit to all of the parchment mills of the country, having contracts with all of them for his "No. 1 Waterleaf." S. M. Kennedy & Co. have recently put upon the market a new paper which takes the place of a coated paper, and is having, to quote Mr. Kennedy's own words, "a great sale."

The Brockmiller Brothers Manufacturing Company has started the old Hay Mill, at Valley Forge, as a parchment mill. A year ago this mill was reported in first-class condition, but during the interval someone

broke in and carried away all the brass from the machinery, so that it had to be entirely refitted before it could be run.

A fine new five story brick building is being erected on Seventh street, just south of the Franklin Institute, for Albert De Cernea & Co.

Irwin N. Megargee & Co. are rapidly getting their stock into the new quarters on Sixth street, and by the middle of next week the change will have been completed.

Wm. Allen, formerly with Charles M. Stoeve & Co., has assumed the position of general salesman with Wm. Hoffman & Sons, of Baltimore. It is expected that he will be given charge also of an office in this city.

I had the pleasure of shaking hands to-day with W. F. Brunner, vice-president of the Paterson Parchment Paper Company, of Passaic City, N. J. He is an old subscriber and a constant admirer of THE PAPER TRADE JOURNAL.

The chemical market continues sluggish. Very few of the large consumers of bleach have contracted for next year from the Alkali Association, but are hoping for some relief before they will require large amounts. A large English chemical maker, who is at present in this country, claims to know what the average cost of bleach was to the alkali association during the past year, and reports it to be 73½¢ per 100 pounds delivered in Liverpool. For this American consumers are permitted under certain conditions and cash ten days to pay 2¼¢ to 2½¢ cents per pound, according to quantity. If this isn't a monopoly I should like to know what is. Spot stocks of bleach are small and prices are firmly held at 2¼¢ c.; 48 per cent. caustic soda ash is quoted at 1.60@1.65c.

Next time I shall take pleasure in showing your readers the kind of contract which the English alkali combination is forcing upon American manufacturers.

STYLOGRAPHIC PEN.

Insurance of Paper Mills.

VIEWS OF MANUFACTURERS.

For the reason that the matter of fire insurance is of special interest to owners of paper mills, and having in mind the fact that there has been some question as to the advantages of insurance by the mutual plan or in the ordinary stock companies, the publishers of THE JOURNAL addressed a note of inquiry to a number of manufacturers in the following terms:

NEW YORK, December 1, 1892.

Geo. R. Dickinson Paper Co., Holyoke, Mass.:

GENTLEMEN—We would be pleased to learn your views upon fire insurance as applied to paper mills. Will you kindly tell us whether or not you think

(1) Existing rates too high?
(2) Whether the mutual plan or insurance in the ordinary stock companies is preferable?
(3) What elements should be taken into consideration on paper mill insurance?

Yours very truly,

HOWARD LOCKWOOD & Co.

In reply to the foregoing communication a number of responses have been received. These set forth the views of the writers as based on experience and are as under:

The George R. Dickinson Paper Company, Holyoke, replies concisely to the inquiries as follows:

We are very well satisfied with our insurance in the mutual company in every respect, and consider it preferable to stock company.

The Newton Paper Company, Holyoke, answers:

1. Yes.
2. Mutual.
3. Mutual companies have returned large dividends on the same premium as charged by the stock companies.

The Ontario Paper Company, Watertown, N. Y., says:

1. No.
2. Mutual plan.
3. Automatic sprinklers and double supply of water; one steam pump always in operation, and reservoirs.

Following are replies more in detail:

SPRING FORGE, Pa., December 5, 1892.
We have been insured in the New England mutual fire insurance companies, and, as you know, their plan is to avoid fires.

The cost of insurance of this kind is very low, and I am very doubtful whether any improvement over their system could be made.

P. H. GLATFELTER.

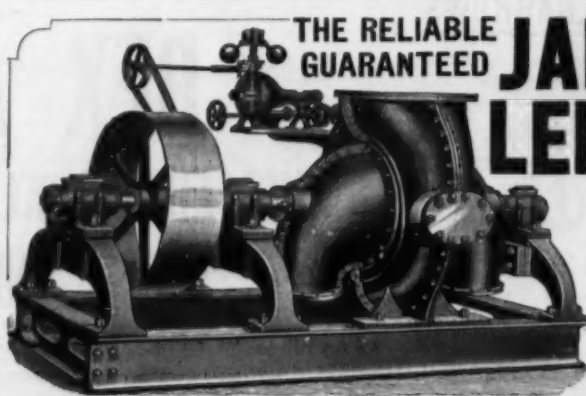
THE HUDSON RIVER WATER POWER AND PAPER COMPANY,
HARTFORD, December 2, 1892.

We insure on the mutual plan. We have taken great pains to have our works in such condition that we could insure in the mutual companies. As I understand, their rates are arranged to protect the various industries in proportion to their fire risks.

THOMAS DUNCAN, Treasurer.

BYRON WESTON COMPANY,
DALTON, Mass., December 5, 1892.
In regard to insurance of paper mills we would answer the first question by stating that we think the

OSGOOD & BARKER,
MACHINISTS,
Iron and Brass Founders.
SPECIALISTS IN ALL KINDS OF
PAPER MAKING MACHINERY.
C. W. OSGOOD, Proprietor,
BELLOWS FALLS, VT.



THE RELIABLE
GUARANTEED

JAMES WATER WHEEL
LEFFEL

SIX inches to NINETY-SIX inches diameter, under heads ranging from 2 to 350 feet, in many of the finest paper mills of this country, several companies using TWENTY to THIRTY-TWO Leffel Wheels each.

Their New Wheels give HIGHER SPEEDS under low heads, and LOWER SPEEDS under high heads than any Water Wheel now made.

The Company are now in better condition than ever before to supply these justly celebrated Wheels with dispatch and promptness. Send for their fine catalogue, nicely illustrated, and write them your wants fully. Address

THE JAMES LEFFEL & CO.,
SPRINGFIELD, OHIO, or 110 Liberty St., New York City.

THE WENDLER-SPIRO PATENT ACID PLANT

IS THE SIMPLEST, MOST ECONOMICAL AND MOST RELIABLE APPARATUS IN USE TO-DAY.

NO PUMPS!**NO AGITATORS!****NO SMELL!****NO REPAIRING!**

MESSRS. WENDLER & SPIRO, Watertown, N. Y.:

GENTLEMEN—We are very much pleased to be able to state to you that the Acid Plant you built and placed in position for us at our Sulphite Mill at Hamilton, Ohio, is, in accordance with contract made with you last July, *doing excellent work so far, and we have had no trouble with it from the beginning. We see no reason why it should not continue to do equally well and be a very durable plant.*

As you know, we had the plant constructed for a larger volume of acid than we really need for the size of our plant—two (2) digesters—and it performs the work thoroughly with the volume of acid contracted for and must very naturally give us our requirements with *great saving of time in running it. So far as our experience in the Sulphite business goes, we do not know of a plant that could work better.*

We will be glad at any time to have you refer anyone to us, and would be very glad to be of any service to you that we can in aiding you to secure contracts for plants elsewhere.

THE LOUIS SNIDER'S SONS CO.,

HENRY SNIDER, President.

MESSRS. WENDLER & SPIRO, Watertown, N. Y.:

GENTLEMEN—The Acid Plant built by you for us and started February, 1891, has given full satisfaction in every respect, and considerable saving of sulphur is made over the vacuum system now in use by us, and which we will replace later by one of your make. We hereby authorize you to use our name as reference, and shall be pleased to show our plant to any party whom you may introduce.

Yours truly,

REMINGTON PAPER CO.,

By A. D. REMINGTON, President.

We will furnish Plans and Superintend the Construction and Starting of Paper, Pulp and Sulphite Mills, and undertake any Alterations. Enlargement or Repairs of Mills now running. Correspondence Solicited.

WENDLER & SPIRO, Chemical and Civil Engineers, WATERTOWN, N. Y.

present rates are too high. In answer to the second question we prefer the mutual plan of insurance to the stock companies, and in reply to the third question we think the location and water supply the most important of any of the considerations. Another very important thing is the watchfulness and care and good condition which exists in each separate plant. BYRON WESTON COMPANY.

CLEVELAND PAPER COMPANY,
CLEVELAND, Ohio, December 3, 1892.
Any paper mill that will carry out the requirements so as to be acceptable to the factory mutuals of New England will find that this is by all means the best insurance for paper mills. We consider their rates fair. Insurance on paper mills not equipped so as to be acceptable to factory mutuals is in some instances too high, and rates are made too indiscriminately.

As to ordinary mutual and stock companies, we consider the stock preferable. The proper elements for consideration are for the insured, and those to be considered by the insurer are the conditions and surroundings of the plant, which should be governed by good business instincts. CLEVELAND PAPER COMPANY,
N. W. Taylor.

THE BACON PAPER COMPANY,
BOSTON, December 3, 1892.
1. The requirements of mutual companies and present condition of first-class paper mills in regard to protection against loss by fire should warrant a reduction, at least to old rates.

2. We consider the mutual plan the best, inasmuch as the cost of insurance is less, as our accounts show during the past thirty years.
3. Materials used in manufacturing, location of storage and handling of same, plans and materials used in construction, facilities for extinguishing fire, general management of the mill.
THE BACON PAPER COMPANY.

CROCKER, BURBANK & CO.,
PITTSBURGH, Mass., December 3, 1892.
So far as rates are concerned mutual companies are supposed to conduct their business in the most economical way possible. If that is correct the insured pay only cost of doing the business. No one ought to expect to have it done at less price.

The fact that most of our mills are insured in mutual companies is a sufficient answer to your second question.
With us the only consideration in insurance is, whether it is policy to be at the expense of fitting up a mill to the standard requirements or seeking insurance elsewhere.

CROCKER, BURBANK & CO.,
ROARING SPRING, Pa., December 3, 1892.
We think the rates of insurance on good risks are too high, while those on poor ones may be too low. We believe it to be to the interest of paper manufacturers to make their risks as good as they possibly can, and keep them good. Much can be done with care and attention to keep the risks satisfactory to the insurance companies.

We are very much in favor of the New England mutuals' plan, but there appears to be some objections to the insurance laws of Pennsylvania by these companies, and at present we are not in them, although we would like to be.

D. M. BARE & CO.,
TILESTON & HOLLINGSWORTH CO.,
BOSTON, December 3, 1892.

In our judgment the mutual plan of insurance is by far the best.
By this method you pay the expense of doing the business and no more, and an experience of many years has shown that this method is quite safe and very cheap.

It has another great advantage. It tends to prevent fires and loss by requiring many precautions and apparatus to put fires out before they have made much headway.
The mutual mill insurance companies have led the way in reducing the amount of the annual fire losses of the United States—a waste which at this time is a national disgrace.

We do not think the present rates in the mutual mill insurance companies are too high.

TILESTON & HOLLINGSWORTH COMPANY,
TICONDEROGA PULP AND PAPER COMPANY,
TICONDEROGA, N. Y., December 3, 1892.
We are firm believers in insurance by mutual companies. We do not think the existing rates charged by them are too high, and we consider insurance by them far preferable to insuring in stock companies.

As to the elements taken into consideration in insuring paper mill property we would name first, the construction of the mill; second, means of lighting and heating it; third, the kind of stock used in manufacturing paper; fourth, the pumps, automatic sprinklers and other facilities for protection from fire; fifth, watchman's clock, lantern and record of fidelity.

Ticonderoga Pulp and Paper Company,
CLAYTON H. DE LANO, President.

BARDEEN PAPER COMPANY,
OTSEGO, Mich., December 3, 1892.
We have no complaint to make. We have all our properties fully covered with automatic sprinklers and are getting rates which pay the

insurance company well, and which are as low, perhaps, as we could expect.

The mutual plan is the correct one if on a proper basis, the same as the New England Mutual; but here in the West it has not been successful as a rule, and until we can reach the standard of the New England Mutual would prefer the stock plan.

There are mills that no rate would be high enough for in my mind, the slack government of the mill inviting conflagration.
G. K. BARDEEN, President.

THE LOUIS SNIDER'S SONS COMPANY,
CINCINNATI, December 3, 1892.

We consider the existing rates on paper mill entirely too high. The mutual plan of insurance is more economical than the regular stock companies, but the mutual companies require quite a considerable outlay in the way of fire protection which is not required by regular stock companies, and when that outlay is considered in the general equipment of the mill we feel that the stock companies' rates are preferable.

The only dangerous part about a paper mill where goods are used is the regular assorting room and regular cutting and dusting room, and if these rooms were properly equipped in accordance with the requirements of the mutual company we do not see why it (the mutual company) should not be satisfied to insure at about as low rates as it does without the large outlay necessary for the full equipment in regard to the plan of the entire mill; but we think, too, that the proper equipment of the regular assorting room and regular cutting and dusting room according to the plan of the mutual company would cause the stock companies to make much lower rates than they do.

THE LOUIS SNIDER'S SONS COMPANY,
CLIFF PAPER COMPANY,
NIAGARA FALLS, N. Y., December 3, 1892.

In answer to your inquiries, in our opinion:
(1.) Existing rates are too high in the stock companies.

(2.) We believe from our observation that the mutual plan of insurance is much preferable where the company is sound, like the Eastern mutuals.

(3.) We consider the mutual insurance, as written by the Eastern mutuals, is not only better by reason of its low rates, but particularly by its system of inspection. There are very few mills which are kept as free from liability to fire as they might be where they are inspected by regular in-

spectors as sent out by insurance companies. There are no mills that want to catch fire, but people will get careless, and many things escape notice which, when they are called to their attention, are remedied, and no doubt a great many fire are thereby avoided.
CLIFF PAPER COMPANY.

BALLSTON SPA, N. Y., December 2, 1892.
I do not think existing rates are too high where the mill is not equipped with automatic sprinklers. Stock companies take insurance on paper mills where there is no sprinkler system. The mutual companies will not do this. They (the mutuals) insist upon having the mills fully equipped for all emergencies—for putting out fires automatically as well as otherwise. I think this is the most important thing to be considered in insurance on big mills.

Every mill should be fully equipped with the very best automatic sprinklers, and not only pumps for fire purposes driven by water, but each mill should be fully equipped with the best possible pump, to be driven by steam, for putting out a fire when it is necessary to use it. Each and all of my mills are fully equipped in the best possible manner with automatic sprinklers and with pumps—fire pumps driven by water, and each mill has a powerful steam pump. So that I think that there is the greatest safeguard against fire, for there is every appliance driven by steam and water for putting out that fire.

All of my mills are insured with the mutuals, and some that are an extremely low risk are in the stock companies, but nearly all are in the mutuals.
GEO. WEST.

ALLEN BROTHERS COMPANY,
SANDY HILL, N. Y., December 5, 1892.

No. 1.—Existing rates too high?
It is not the province of the insured to say whether the rates are too high or too low. Every one insuring always seeks to get the lowest rate possible.

No. 2.—Whether the mutual plan of insurance in the ordinary stock companies is preferable?

Our experience is that both plans are satisfactory. We do not care to have our eggs all in one box, and for this reason adopt both plans.

No. 3.—What elements should be taken into consideration on paper mill insurance?

Construction of buildings.
Absence of enclosed ceilings or other spaces.
Fewer number of stairs and hatchways.

(Continued on page 1110.)

IRON AND STEEL ROOFING

CORRUGATED.—V. CRIMP.
—STANDING SEAM.—
GALVANIZED IRON — TIN PLATE.
THE CINCINNATI CORRUGATING CO.,
WRITE FOR CATALOGUE AND PRICES. PIQUA, OHIO.

McNEIL STEEL TUBULAR BARROW

MANUFACTURERS OF
STEEL
WHEELBARROWS.

Every Paper Mill should have one in the boiler room.
THE J. C. McNEIL CO., AKRON BOILER WORKS, AKRON, OHIO.

The Oakland Paper Co.,

MANCHESTER, CONN.,
Manufacturers of No. 1 Engine Sized, ALL RAG, White and Colored, Flat and Envelope PAPERS.
All Rag Duplex Envelope a Specialty.
Send for Sample Book.
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Cor. Federal,
MILLS HAVING SPECIALTIES IN THESE LINES, WRITE US.

TO ALL WHO PRACTICE ECONOMY.

Having made a special study of ELECTRIC POWER TRANSMISSION and of its application in all forms to PAPER MILL PLANTS, we are prepared to advise, to estimate and furnish plans on ELECTRIC CONSTRUCTION.
MASSACHUSETTS ELECTRICAL ENGINEERING CO., STONE & WEBSTER, Managers, 4 Post Office Square, Boston, Mass.

ALUM! ALUM!

Write us for quotations before renewing your alum contract. We manufacture the MERRIMAC POROUS ALUM. This is of great strength and purity, has an absolutely uniform composition, and is free from iron, zinc, specks and free acid.

We also manufacture all other grades of Sulphate of Alumina and Ammonia Alum that are required by the paper maker.

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Elevators, Conveyors, Manila Rope Power Transmission Machinery, Ewart Detachable Link Belting Dodge Chain, Howe Chain, &c.

Western Connection: LINK BELT MACHINERY CO., Chicago.

Wood Pulp, Soda AND Sulphite,

IMPORTED BY
TIMES
G. RAU, BUILDING, New York.
SOLE AGENT FOR THE U. S. AND CANADA:
ROZES AINÉ & FRÈRES, Agen,
Well-known Packers of Linens and Cottons.

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UNIFORMITY, CLEANLINESS, STRENGTH, COLOR.
FOR BOOK, MANILLA, No. 1 NEWS.
PERFECT GROUND SPRUCE PULP.
MOOSEHEAD PULP AND PAPER CO., SOLON, ME.
Office, 308 Sears Building, Boston.

BROOKLYN AND BUFFALO, N. Y.; BAYONNE, N. J.

ROYAL ALUM, REX ALUM, KING FILTER ALUM, LUMP AND GROUND ALUM.

Our Alums are used in more than 100 mills in the United States and Canada. Write us for quotations and state the kind of paper you make and we can save you money.

Martin Kalbfleisch's Sons Co.,
55 FULTON ST., cor. of CLIFF ST., New York.

TRUE & McCLELLAND,
(LATE E. A. TRUE & CO.)
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RESERVOIR TANKS
OF ANY SHAPE OR CAPACITY, FOR
PAPER AND PULP MILLS.
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—Illustrated Catalogue upon Application.—



Imports and Exports.

IMPORTS AT NEW YORK.

FOR THE WEEK ENDED DECEMBER 2, 1892.

An. Colors..	336	\$9,060	Lead Pencils	8	\$1,379
Alum.....	—	—	Paper.....	728	41,077
Bl. Powders	518	10,519	Steel Pens..	6	1,550
Soda Ash..	5,683	30,603	Stationery..	17	108
Soda, Caus..	300	4,991	Clay.....	—	4,770
Soda, Sal..	181	700	J'te B'ts, &c.	—	—
Soda, Hypo.	—	—	P. Hangings	8	477
Ultramarine	36	907	P'r Stock..	3,281	31,910
Books.....	291	34,792	Terra Alba..	—	—
Newspapers	365	19,896	Waste.....	17	3,251
Engravings	94	12,135	Wood Pulp.	685	3,356
Printing and	—	—			
Lith. Inks.	12	528	Totals.....	12,916	\$14,504
Writ'g Inks.	370	2,304			

Imports General Merchandise for the week ending December 2, 1892..... \$8,023,229

IMPORTS OF PAPER STOCK AT NEW YORK.

FROM JANUARY 1 TO DECEMBER 7, 1892.

Whence Imported.	Rags.	Old Papers.	Chemical Fibre.	Ground Wood.	Manilla Stock.
Bales.	Bales.	Tons.	Tons.	Bales.	
Alexandria..	510	—	—	—	1,285
Amsterdam.	9	—	81	—	3,082
Antwerp.....	5,540	388	4,321½	2	17,588
Aspinwall...	1,128	—	—	—	735
Auckland....	—	—	—	—	—
Barbadoes...	78	—	—	—	—
Bordeaux.....	4,300	—	—	—	299
Bremen.....	4,944	7	1,108	—	18,978
Bristol.....	—	—	—	—	4,185
Calcutta.....	—	—	—	—	14,148
Catania.....	773	—	—	—	—
Cent. Amer..	627	—	—	—	—
Copenhagen..	584	—	2,501	—	1,190
Dublin.....	—	553	—	—	813
Dundee.....	—	81	—	—	9,680
Fiume.....	—	—	261	—	—
Geestmunde..	544	—	—	—	1,580
Gefse.....	—	—	1,342	—	—
Genoa.....	1,257	—	—	—	5,221
Glasgow.....	1,256	661	—	—	745
Göteborg....	—	—	2,703	—	710
Hamburg.....	7,793	1,303	3,144	—	12,470
Hamilton....	—	—	—	—	56
Havre.....	80	—	—	—	105
Hio.....	9,585	—	—	—	—
Hull.....	8,321	—	3,845	—	19,065
Kobe.....	7,279	—	—	—	—
Leith.....	—	—	—	—	57
Leghorn.....	4,586	—	—	—	—
Liverpool.../	2,822	1,194	—	—	38,917
London.....	16,083	6,152	448	—	25,478
Marseilles...	740	—	—	—	4,001
Nassau.....	—	—	—	—	40
Naples.....	—	—	—	—	9
Newcastle...	—	91	—	—	3,890
Pillau.....	8,643	—	—	—	913
Rotterdam...	3,715	—	214	—	9,406
Stettin.....	17,090	49	4,787	—	9,082
Swansea.....	45	—	—	—	605

a. Including 154 ba. cotton waste.
b. Including 1,189 ba. cotton waste.
c. Including 421 ba. cotton waste.
d. Including 380 ba. cotton waste.

NEW YORK IMPORTS.

FROM NOVEMBER 30 TO DECEMBER 7, 1892.

Paper Stock.
Leon Gottheil, Westernland, Antwerp, 97 tons chemical fibre.
G. Hamilton, by same, 42 tons chemical fibre.
Charles Harley Company, Newport, Aspinwall, 118 ba. rags.
E. Hutton & Co., Cuba, Bremen, 336 ba. bagging.
G. Rau, Winchester, Bremen, 35 tons chemical fibre.
Oelrichs & Co., America, Bremen, 15 ba. manillas.
Jessup & Moore Paper Company, Principia, Dundee, 132 ba. manillas.
J. Libmann & Co., Norwegian, Glasgow, 29 ba. rags.
True & McClelland, Norwegian, Glasgow, 77 ba. papers.
George Hamilton, Cynthina, Hamburg, 101 tons chemical fibre.
F. Salomon & Co., Sorrento, Hamburg, 106 ba. manillas, 97 ba. papers.
J. Libmann & Co., Hindoo, Hull, 69 ba. rags.
J. W. Lyon & Co., St. Ronans, Liverpool, 59 ba. cotton waste.
Darmstadt & Scott, by same, 27 ba. papers.
John Glenn, by same, 34 ba. papers.
J. W. Mason & Co., Nomadic, Liverpool, 144 ba. manillas.

Burgess & Co., by same, 73 ba. manillas.
R. H. Overton & Son, Tower Hill, London, 95 ba. papers.
Train, Smith & Co., Holland, London, 122 ba. papers.

James Pirnie, by same, 366 ba. bagging.
C. A. Cheney, by same, 25 ba. rags.
J. Libmann & Co., Spain, London, 48 ba. rags.
Darmstadt & Scott, by same, 69 ba. rags.
Atterbury Brothers, by same, 18 ba. rags.
Burgess & Co., by same, 300 ba. manillas, 57 ba. papers.

J. Libmann & Co., Massachusetts, London, 72 ba. rags.
James Pirnie, by same, 160 ba. bagging.
Atterbury Brothers, Ludgate Hill, London, 155 ba. rags, 24 ba. manillas.

Darmstadt & Scott, by same, 23 ba. rags.
J. Libmann & Co., America, London, 159 ba. rags.
Burgess & Co., by same, 48 ba. papers.
Augustine Smith & Co., by same, 336 ba. papers.
Atterbury Brothers, by same, 45 ba. rags.
J. W. Mason & Co., Kipline, Newcastle, 334 ba. manillas.

Horace Dutton & Co., by same, 340 ba. manillas.
Woolworth & Graham, Schiedam, Rotterdam, 181 ba. manillas.
G. Amsinck & Co., Gotha, Stettin, 39 ba. manillas.

Paper.

E. G. Soltmann, Westernland, Antwerp, 1 ca.
W. Seyd, by same, 12 ca.
G. W. Sheldon & Co., by same, 30 ca.
Kupfer Brothers, by same, 19 ca.
L. De Jonge & Co., by same, 23 ca.
Louis C. Wagner, by same, 19 ca.
Schroensake, Kisk & Co., by same, 22 ca.
Scovill & Adams Manufacturing Company by same, 20 ca.

E. G. Soltmann, Chicago, Antwerp, 9 ca.
Mullins & Kropf, by same, 25 ba.
D. S. Walton & Co., Obdam, Rotterdam, 44 ba.
L. De Jonge & Co., by same, 3 ca.
Neuss, Hesselein & Co., by same, 25 ca.
E. Kimpton, Britannic, Liverpool, 3 ca.
Nevius & Haviland, by same, 17 ca. hangings.
American Tobacco Company, by same, 41 ca.
Marcus Ward & Co., by same, 2 ca.
Thorn & Walter, Ludgate Hill, London, 2 ca. hangings.

T. T. Eckert, Aurania, Liverpool, 49 ca.
E. & H. T. Anthony & Co., Scandia, Hamburg 9 ca.
Kaufmann & Strauss, America, Bremen, 9 ca. colored.
Doty & Scrimgeour, Didam, Rotterdam, 4 ca.
Henry Griffin & Sons, by same, 3 ca.
Gane Brothers, by same, 8 ca.
Miller & Plinn, by same, 2 ca.
J. Campbell & Co., Schiedam, Rotterdam, 6 ca.
L. De Jonge & Co., by same, 18 ca.
Haviland & Abbott, by same, 1 bale.
E. & H. T. Anthony & Co., by same, 3 ca.

BOSTON IMPORTS.

FROM DECEMBER 1 TO DECEMBER 7, 1892, INCLUSIVE.

Paper, &c.

Wm. Guild & Co., Georgian, Liverpool, 1 ca. and 3 ba. periodicals.
Gregory & Brown, by same, 7 ca. paper hangings.
Dennison Manufacturing Company, by same, 8 ba. and 1 ca. tissue paper.
Dennison Manufacturing Company, Bostonian, Liverpool, 31 ba. and 9 ca. tissue paper.
D. A. Longworthy, Borderer, London, 25 ca. paper and 3 ca. stationery.

Paper Stock.

Train, Smith & Co., Borderer, London, 2,462 ba. rags, 233 ba. waste paper and 230 ba. flax waste.
True & McClelland, by same, 130 ba. waste paper.
Wheelwright Paper Company, by same, 190 ba. waste paper.
Horace Dutton & Co., by same, 141 ba. manillas.
Crocker, Burbank & Co., by same, 326 ba. waste paper.
True & McClelland, Bostonian, Liverpool, 193 coils manillas.
Train, Smith & Co., Georgian, Liverpool, 222 ba. rags.

C. A. Cheney, by same, 310 ba. rags.
True & McClelland, by same, 60 coils manillas.
Robert Grey, by same, 23 ba. rags.
Springfield Waste Company, Palestine, Liverpool, 46 ba. waste papers.
S. D. Warren & Co., Nesamore, London, 649 ba. rags and 143 ba. paper waste.
True & McClelland, by same, 141 ba. waste paper.
Horace Dutton & Co., by same, 150 ba. rags, 118 ba. waste paper and 125 ba. flax waste.
M. A. Ring & Son, by same, 95 ba. flax waste.
C. A. Cheney, Kansas, Liverpool, 314 ba. rags and 83 ba. manillas.

True & McClelland, by same, 197 ba. waste paper.
W. A. Castle, Colorado, Hull, 235 ba. rags.
Horace Dutton & Co., by same, 234 ba. rags.
Crocker, Burbank & Co., by same, 194 ba. waste paper.
Burgess & Co., by same, 100 ba. manillas.

Wood Fibre.

W. A. Castle, Sorrento, Antwerp, 270 ba.
L. Watson & Co., by same, 127 ba. (cellulose).
Perkins, Goodwin & Co., by same, 2 ba.
Leon Gottheil, by same, 587 ba.
W. A. Castle, Borderer, London, 309 ba.
Leon Gottheil, by same, 540 ba.
Frederick Bertuch & Co., Colorado, Hull, 75 ba.
Rice-Kendall Company, by same, 400 ba.
Stone & Downer, by same, 1,025 ba.
Hollingsworth & Whitney Company, Jessen, Port Medway, N. S., 1,807 ba.

Slings.

C. A. Cheney, Kansas, Liverpool, 309 bags.
Warren & Co., Palestine, Liverpool, 135 bags.

Bleaching Powder.

J. L. & D. S. Riker, Kansas, Liverpool, 310 cks.
J. L. & D. S. Riker, Palestine, Liverpool, 298 cks.
J. L. & D. S. Riker, Georgian, Liverpool, 336 cks.

J. L. & D. S. Riker, Bostonian, Liverpool, 333 cks.
Caustic Soda.
Edward Hill's Sons Company, Kansas, Liverpool, 51 drums.

Soda Ash.

Wing & Evans, Bostonian, Liverpool, 95 cks. and 300 bags.
Order, Georgian, Liverpool, 30 cks.
Warren & Co., Palestine, Liverpool, 46 cks. and 694 bags.
Warren & Co., Kansas, Liverpool, 167 cks. and 376 bags.

Soda Crystals.

Warren & Co., Kansas, Liverpool, 280 bbls.

Crude Sulphur.

Linder & Meyer, Bostonian, Liverpool, 500 bags.
Linder & Meyer, Georgian, Liverpool, 300 bags.

PHILADELPHIA IMPORTS.

FOR THE WEEK ENDED DECEMBER 3, 1892.

Paper.

Jessup & Moore Paper Company, Minnesota, London, 102 waste paper.
Garrett & Sons, by same, 165 ba. waste paper.

Soda Ash.

Brown Brothers & Co., Lord Gough, Liverpool, 300 cks.

Salt Cake.

Brown Brothers & Co., Lord Gough, Liverpool, 150 cks.

EXPORTS of Paper, &c., from New York for the Week Ended December 6, 1892.

BOOKS, cases, to British Australasia, 1; to Cuba, 1; to Hamburg, 1; to Mexico, 73; to Liverpool, 27; to Bremen, 1; to British West Indies, 10; to Venezuela, 1; to Colombia, 2; to Brazil, 3; to Central America, 6; to China, 1; to Dutch West Indies, 2; to London, 45; to New Zealand, 1; to Peru, 1; to San Domingo, 2.

PAPER, to Cuba, 598 pkgs., 94 bbls.; to Brazil, 31 ca.; to British West Indies, 208 pkgs.; to Liverpool, 19 pkgs.; to Hayti, 2 ca.; to British Australasia, 29 pkgs.; to Hamburg, 5 ca., 25 pkgs.; to London, 307 ca.; to Mexico, 918 ca., 25 pkgs.; to Venezuela, 8 pkgs.; to Dutch West Indies, 7 ca.; to Gibraltar, 4 ca.; to New Zealand, 114 ca.; to San Domingo, 11 pkgs.; to Bremerhaven, 25 ca.; to Berlin, 8 ca.; to British Honduras, 30 pkgs.; to Central America, 19 pkgs., 44 ca., 2 bbls.; to Chili, 7 ca.; to Christiania, 2 ca.; to Ecuador, 48 pkgs., 1 bale; to Havre, 1 ca.; to Porto Rico, 601 pkgs.

STATIONERY, cases, to Cuba, 15; to Liverpool, 14; to London, 54; to Brazil, 12; to British West Indies, 3; to Central America, 63; to Hayti, 77; to Dutch East Indies, 2; to Porto Rico, 10; to Colombia, 47; to Havre, 2; to Japan, 20; to Mexico, 29; to Venezuela, 6; to Argentine Republic, 100; to British Australasia, 5; to Bremen, 3; to China, 1; to Chili, 2; to Dutch Guiana, 1; to Ecuador, 3; to Glasgow, 1; to Hamburg, 19; to Peru, 2.

AGGREGATES AND VALUES.

Paper, reams.....	—	—
Paper, pkgs.....	2,499	\$11,246
Paper, cases.....	281	5,594
Books, cases.....	178	10,546
Stationery, cases.....	486	90,228
Rosin, bbls.....	2,468	8,579
Totals.....	5,907	\$56,283

Exports General Merchandise for the week ending December 6, 1892..... \$8,023,229

THE SELKIRK PROCESS

Will (with less Soda than you now use) increase the Daily Yield of

CHEMICAL FIBRE

From your

SODA DIGESTERS FIFTY PER CENT.

Address

THE SELKIRK STANDARD FIBRE CO.,
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WALDHOF SULPHITE PULP

STRONG! PURE! FELTY!

OF ALWAYS EVEN QUALITY.

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The Paper Trade Journal.

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HOWARD LOCKWOOD & CO.,
Publishers.

HOWARD LOCKWOOD. WILLIAM P. HAMILTON.

NEW YORK: SATURDAY, DECEMBER 10, 1892.

THE JOURNAL contains the latest and fullest information relative to the paper trade in all parts of the world, including descriptions of new appliances and processes for making paper, experiments with new fibres and other materials, a record of the water supply, with the latest manufacturing news in all parts of the country. It gives the cream of all the foreign technical journals which relate to the paper interest, besides communications from competent persons in the trade, both at home and abroad. The market review and quotations show the state of trade in all the principal cities, and no pains have been spared to make these accurate and complete.

Advertisements cannot be received for insertion in the current week later than 9 A. M. on Friday. The charge for advertising is 25 cents a line, each insertion. The rates for standing and displayed advertisements to be had on application. Card in Directory Column and one copy of paper, \$15 a year.

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Subscription and postage for Germany, per annum, 30 reichsmark
Foreign subscribers may address our New York office.

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All communications must be addressed to

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136 and 138 Duane street, New York.

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Western Office—L. S. DICKY, General Manager, 116 LA SALLE ST., CHICAGO, ILL.

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American Mail and Export Journal, separate editions, English and Spanish (EL CORREO AMERICANO Y DIARIO DE EXPORTACION), Monthly, 3.00
Lockwood's Directory of the Paper and Stationery Trades, Annually, 2.00
All Pioneer Publications.

HOWARD LOCKWOOD & CO.,
136 & 138 DUANE ST., NEW YORK.

WE print in this issue a number of replies from paper manufacturers in response to an inquiry calling for their views on paper mill insurance. The opinion of the majority is decidedly in favor of the mutual plan. There are some who think that, all things considered, rates are too high, while others entertain opposite views. The system which calls for the best means of protection, such as automatic sprinklers, the most approved arrangements for fire service, &c., is, in our opinion, preferable, for while it may call for the expenditure of considerable money in order to put a mill in the highest state of efficiency for resisting and overcoming conflagration, it also provides one of the best conditions for avoiding loss and the obstruction of business, and this is what every papermaker wants unless there may be one who hopes to dispose of a losing business to the insurance companies. Adequate protection, even at enhanced cost, would therefore seem to be cheapest in the long run, and the safest guaranty for remuneration in case of fire.

MANY manufacturing corporations, acquiring their corporate powers under the laws of other States, have established branch houses or agencies in New York city or at other localities within the limits of this State. We therefore call the attention of such companies to the provisions of an act to amend the general corporation law of New York, passed at the last session of the Legislature and approved by the Governor on May 12. This statute is known as Chapter XXXV. of the General Laws, and in its sections 15, 16, 17 and 18 applies particularly to foreign corporations or companies doing business by virtue of the authority conferred upon them by the State in which their principal place of business is located. For the information of our readers thus interested we reprint two

of the sections of the act referred to. These are as follows:

§ 15. CERTIFICATE OF AUTHORITY OF A FOREIGN CORPORATION.—No foreign stock corporation other than a monied corporation shall do business in this State without having first procured from the Secretary of State a certificate that it has complied with all the requirements of law to authorize it to do business in this State, and that the business of the corporation to be carried on in this State is such as may be lawfully carried on by a corporation incorporated under the laws of this State for such or similar business, or, if more than one kind of business, by two or more corporations so incorporated for such kinds of business respectively. The Secretary of State shall deliver such certificate to every such corporation so complying with the requirements of law. No such corporation now doing business in this State shall do business herein after December 31, 1892, without having procured such certificate from the Secretary of State, but any lawful contract previously made by the corporation may be performed and enforced within the State subsequent to such date. No foreign stock corporation doing business in this State without such certificate shall maintain any action in this State upon any contract made by it in this State until it shall have procured such certificate.

§ 16. PROOF TO BE FILED BEFORE GRANTING CERTIFICATE.—Before granting such certificate the Secretary of State shall require every such foreign corporation to file in his office a sworn copy of its charter or certificate of incorporation, and a statement under its corporate seal, particularly setting forth the business or objects of the corporation which it is engaged in carrying on, or which it proposes to carry on, within the State, and a place within the State which is to be its principal place of business, and designating, in the manner prescribed in the Code of Civil Procedure, a person upon whom process against the corporation may be served within the State.

The person so designated must have an office or place of business at the place where such corporation is to have its principal place of business within the State. Such designation shall continue in force until revoked by an instrument in writing designating in like manner some other person upon whom process against the corporation may be served in this State.

If the person so designated dies or removes from the place where the corporation has its principal place of business within the State, and the corporation does not within thirty days after such death or removal designate in like manner another person upon whom process against it may be served within the State, the Secretary of State may revoke the authority of the corporation to do business within the State, and process against the corporation in an action upon any liability incurred within this State before such revocation may, after such death or removal and before another designation is made, be served upon the Secretary of State. At the time of such service the plaintiff shall pay to the Secretary of State \$2, to be included in his taxable costs and disbursements, and the Secretary of State shall forthwith mail a copy of such notice to such corporation, if its address or the address of any officer thereof is known to him.

Sections 17 and 18 of the law refer to the acquisition of real property by foreign corporations. It will be seen that any company which does not comply with the provisions above cited may be precluded from doing business in the State of New York, and that no recovery can be had by an action at law to enforce a contract, whether of sale or otherwise, until the certificate required shall have been issued. This law will go into operation on January 1, 1893.

THE merchants of this and every other city have more than ordinary concern in the decision of Judge Gresham, of Illinois, which declares unconstitutional that section of the Interstate Commerce law which compels witnesses to answer questions asked by the commission in the course of its investigations. This decision is probably the most important which has yet been made by any court in regard to the provisions of the Interstate Commerce act. As one of the members of the commission justly remarks, it destroys one of the instrumentalities which Congress has provided in the twelfth section of the law, by which the commission could obtain facts to enable it to carry out the objects of the statute. Now, as the act was passed for the purpose of securing just and reasonable rates for all shippers and equal rates for similar service, it will be readily seen that this decision prevents the commission from obtaining the very information from railroads and from unwilling officials which would enable it to make just decisions in accordance with the tenor and purpose of the law. How, for example, can the decisions of the commission be valuable in case that body is refused information of an important character from roads against which certain complaints are made by less important and admittedly weaker roads, which apply at the doors of the commission for redress? The statute, in fact, makes it the duty of the commission to obtain facts in order to carry out the law, and yet the Circuit Court of the United States takes away the very means of getting at the facts. The annual report of the Interstate Commerce Commission is now due and specific recommendations in the line indicated should be and probably will

be promptly heeded. The law creating the commission has been in existence a number of years and it is somewhat surprising that, at this late day, one of the most important of its provisions should be pronounced a violation of the constitution.

MEDICAL men and medical journals are giving considerable attention to the discussion of the question as to whether it is possible for baled foreign rags to be a medium for cholera, and the more the question is studied the more apparent becomes the fact that so far no case has been made out against this class of merchandise. In fact, the evidence is all the other way. There is no proof that foreign rags have brought Asiatic cholera to this country. On the other hand, there is abundant proof that workers in the rag rooms of paper mills and paper stock warehouses enjoy as good health as those engaged in other indoor industries, that their constancy for labor is as great as that of other classes of workers, and that places where paper mills are located do not show an unusual death rate from infectious or contagious diseases. In 1885 Dr. John S. Billings declared: "There is evidence that the rags collected in this country have produced and given rise to smallpox, but I say there is no evidence that baled imported rags have been the cause of disease," and that statement remains unrefuted. Dr. Koch has examined the reported facts in a number of cases of alleged cholera infection through the medium of rags, and has declared them to be fallacious. Dr. Charles F. Withington, at the instance of the Massachusetts State Board of Health, prepared a report on the question. This report has been reprinted in pamphlet form, and has been issued by the American Paper Manufacturers Association. It is the most complete study on the transmission of disease by the medium of rags which has appeared in this country, and in his conclusions, after stating that authenticated instances are not to be found in which typhus fever, typhoid fever, scarlet fever, measles or diphtheria have been transmitted by paper rags, but that smallpox has been so carried in some few cases, he says: "The statement that cholera has been transmitted by paper rags rests upon a solitary case, of which the details are not complete and on the reliability of which some of the highest authorities on cholera have cast doubt. If the case be accepted it is one of infection by domestic rags, carried only 50 miles from their place of collection." The cholera germ is not tenacious of life. Its great necessity is moisture, and its absence from foreign rags is easily accounted for by the facts that they are packed dry, that a long period of time is occupied in drying, dusting, sorting and packing them, and that months elapse between the time of their collection and that of their delivery to paper mills. It would therefore seem that the present regulations do not rest upon scientific knowledge or information, but that they are based merely upon a theory in which the leading authorities have expressed an utter disbelief, and yet, because of that theory the business of paper stock importers has been brought almost to a standstill, and American paper manufacturers have incurred trouble, annoyance and loss.

Watermarks.

By DANDY.

A paper man who was in a reminiscent mood the other day told the following, the scene being the place where the paper maker lives: "A native of the 'Old Sod' turned up in the mayor's office one day and said, 'Misther Mayor, my name is Sullivan. I live in the Port' ward and have in florence to the ixtint of forty votes. I kape chickens and the water has flooded my cellar and drowned the chicks.' The mayor said, 'I have nothing to do with it; go to the water commissioner.'"

He went out, and as the interview was not satisfactory he turned up at the mayor's office and began his story in precisely the same words as he used the day before. "My good fellow," said the mayor, "I told you yesterday to see the water commissioner."

"I did."

"Well, what did he say?"

"He tould me to kape ducks."

Sulphite appears to be the only active article in the market at present. It has

been going off at a good rate, and as the demand has been large sellers views have moved up a point or two.

The Western straw wrapping men have done it at last. They have formed a corporation under the laws of New Jersey, with a capital of \$4,000,000, and have called it the Columbus Straw Paper Company. Columbus is good. It is appropriate, and this is a good time, so far as the name goes, to make such a combination.

The Western brethren appear to hop along a little livelier than their Eastern confreres.

A fine portrait of the head and neck of a donkey in a 3x2 foot gilt frame with glass front adorns the walls of the office of a paper warehouse on Duane street east of Broadway. It is a fine sample of the jackass tribe and is more tenderly cared for than the office cat. It has belonged to the house for forty-five years and the venerable proprietor states that the said jackass was the genius of the establishment.

Asked why the donkey had such remarkable gifts, the old gentleman replied: "Well, he possesses qualities which it would pay many business men to note. He represents hard work, frugality, perseverance, patience and sobriety, and he has been an inspiration to some people." He might also have added that he was a "kicker."

A jackass as an object lesson in morals is methinks a trifle far-fetched.

One little story is told of him. A Holyoke paper maker came one day to the office and was met there by another paper maker. "Whose picture is that?" asked the Holyoke man. "That's no picture," was his friend's reply, "it's a looking glass."

Few fluctuations have taken place in the volume of exports of paper from New York during the past two months. The range of distribution has, however, enlarged, the British possessions having proved substantial customers. Many sections of South America have increased their orders. San Domingo, the United States of Colombia and Peru make a good showing; Central America is a steady customer, and Brazilian markets have also been fairly supplied.

Trade Talks.

E. M. Rourke, Manchester, England.—The strike of cotton mill operatives in Manchester has been on since November 7, and has had, of course, a direct influence on gunny bagging, which we have been getting in smaller quantities. The cotton goods manufacturers have been running at a loss and they wished to reduce wages. This the help would not agree to, but offered to work four days a week in order to restrict production. This the masters would not allow, and the result was a lockout. The collections of English rags have been stimulated a good deal, and there have been increased quantities for export to America, for the reason that the English paper maker does not use as many rags as he used to, but is now a large consumer of wood pulp. We are not getting any rags from the Continent, and even bagging is not allowed in. Several vessels with rags and bagging from the Continent have been sent back.

Communications.

A Remembrance.

PARIS, France, November 23, 1892.

Editor of The Journal:

I learn by THE PAPER TRADE JOURNAL, which I have just received, of the death of my friend Mr. Howard Lockwood, and I desire to express my great sorrow, for I did not think, when I had the pleasure of seeing him in Paris, that it was for the last time.

We had been acquainted since 1875, when I visited New York, and on every trip that I have made to your side since then I found him a friend, and he always received me with the greatest pleasure.

To you and to all of the staff of THE PAPER TRADE JOURNAL I desire to convey my condolence and sorrowful sympathy.

AUG. KAINDLER.

In Sympathy.

ROSLINDALE, Mass., December 5, 1892.

Editor of The Journal:

I was very much surprised and shocked to learn of the sudden death of Mr. Lockwood. I should have written and extended my sympathies earlier but for the fact that I have been almost constantly from home during the last two months. To the gentlemen, his associates, who have been with him so long and knew him so much better than I, who only saw him occasionally, it must have been a severe shock. Please accept my sympathy and this letter as a

slight contribution to the worth of a man whose career had been both successful and honorable.

F. CURTIS.

Deepest Regret.

LONDON, England, November 23, 1892.

Editor of The Journal:

I learn from the issue of THE PAPER TRADE JOURNAL just to hand of the sudden death of Mr. Howard Lockwood.

Will you please to convey to his sorrowing relatives my deepest sympathy in their sad bereavement.

In Mr. Lockwood the trade loses an imposing personality whose enterprise is as thoroughly appreciated this side of the water as at home.

Again expressing my deepest regret,
M. P. McCoy.

The F. G. Keller Fund.

Subscriptions to the fund for the relief of F. G. Keller, the inventor of wood pulp, are earnestly invited. Following is a list of contributions so far reported:

Through A. Pagenstecher:

Hudson River Pulp and Paper Company, by A. Pagenstecher, president,.....	\$300.00
Wm. A. Russell, Boston, Mass.,.....	300.00
The Glen Manufacturing Company, Berlin Falls, N. H.,.....	100.00
Montague Paper Company, Turner's Falls, Mass.,.....	100.00
Ontario Paper Company, Watertown, N. Y.,.....	50.00
Otis Falls Pulp Company, Livermore Falls, Me., by Hugh J. Chisholm,.....	50.00
Through Wendler & Spiro:	
Wendler & Spiro, Watertown, N. Y.,.....	\$50.00
Cash, Watertown, N. Y.,.....	10.00
A. Drewsen, Dexter, N. Y.,.....	10.00
P. G. Weeks, Skaneateles Falls, N. Y.,.....	10.00
Cliff Paper Company, Niagara Falls, N. Y.,.....	10.00

Changes, Removals and New Firms.

J. H. Brayten, publisher, Bancroft, Neb., has sold out.
C. H. Polhemus, publisher, Nelson, Neb., has sold out.
W. D. Wallace, stationer, &c., Moscow, Idaho, has sold out.
Mark Haynes, publisher, Pawnee Rock, Kan., has sold out.
H. Box will open a stationery and book store at Texarkana, Tex.
F. H. & E. M. Dunton, publishers, Chicago, Ill., have sold out.
P. R. Wright, bookseller and stationer, Lewiston, Ill., has sold out.
Mary E. Safford, bookseller and stationer, Westboro, Mo., is selling out.
Cary E. Morris, bookseller and stationer, Blue Hill, Neb., has sold out.
C. P. Brant, dealer in paper hangings, Detroit, Mich., has sold out.
B. M. Price, publisher of the *Capital*, Olympia, Wash., has sold out.
E. Barnard, publisher, Everly, Ia., has been succeeded by Allan Crossan.
Johnson & Graves, publishers, Waterville, Wash., have dissolved partnership.
Mancel & McLean, printers, Montreal, Que., have dissolved partnership.
W. G. Roberts, bookseller and stationer, Three Rivers, Mich., has sold out.
John A. Flower, publisher, Sibley, Ia., has been succeeded by Alfred Langley.
Mrs. M. T. Donaldson, bookseller and stationer, Sherman, Tex., has sold out.
L. L. Hollinger, publisher, Pittsburg, Kan., has been succeeded by G. B. Brewer.
Alfred Smith has opened a book and stationery store at 58 Bowdoin street, Boston, Mass.

A new paper called *Success* is published by the American Press Company, Baltimore, Md.

Bartlett & Sibley, printers, Pawtucket, R. I., have been succeeded by Sibley & Cranshaw.

Beard & Quebedeau, booksellers and stationers, San Antonio, Tex., have dissolved partnership.

W. H. Richardson, bookseller and stationer, Natchez, Miss., is advertising his business for sale.

Jacques Brothers, booksellers and stationers, Van Buren, Ark., are selling out their business.

A new monthly magazine for girls is the *Doll's Dressmaker*, published by Jennie Wren, New York.

Wessel & Stevens, job printers and stationers, Lincoln, Neb., have been succeeded by Newberry & Stevens.

W. B. Willis, Jr., of Auburn, Ind., has been succeeded in his book and stationery business by Olds Brothers.

The St. Cloud Paper Mill Company, St. Cloud, Minn., has been incorporated with a capital stock of \$50,000.

J. F. Bumstead & Co., dealers in paper hangings, Boston, Mass., have been succeeded by the J. F. Bumstead Company.

The Laureate Publishing Company, Chicago, Ill., has been incorporated with a capital stock of \$10,000. The incorporators

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are Albert H. R. Atwood, John S. Stevens and Alfred T. Kines.

Hensen & Reyniers, printers, Grand Rapids, Mich., have dissolved partnership.

Walbridge & Co., printers and proprietors of the Mackenzie Press, have been reorganized under the same name and style.

Haage & Krause is the style of a new firm which has bought out the news and stationery business formerly conducted by J. Breslin at Lebanon, Pa.

J. W. Fosyne, bookseller and stationer at Sulphur Springs, Tex., has admitted a partner and the firm will be hereafter known as Fosyne & Searles.

T. Sullivan, of the paper manufacturing firm of Cauger & Sullivan, Lancaster, Vt., has sold out to F. A. Amadon, of Bellows Falls, same State, and the style of the new firm is Amadon & Cauger.

George T. Jenks, 198 South Clark street, Chicago, Ill., has begun the publication of a new monthly periodical called the *Shears*. It is devoted to the interests of the paper box and bookbinding trades.

Tait, Sons & Co. is the style of a new publishing house located at 31 Union square, New York, and having a capital of \$150,000. J. Selwin Tait is president and A. B. Yohn is manager of the corporation.

The World's Columbian Exposition Official Catalogue and Directory Company, Chicago, Ill., has been recently incorporated with a capital stock of \$500,000; incorporators: W. B. Conkey, Charles H. Taney, L. Leffman and S. S. Page.

The New York Perforated Paper Company, of New York city, has been incorporated to manufacture and perforate all kinds of paper, including toilet paper and paper bags. Capital, \$10,000, and directors, Robert L. Dannenberg, Joel M. Marx and Max Wilson, of New York city.

John A. Jackson, stationer, 828 Arch street, Philadelphia, Pa., has been succeeded by the John A. Jackson Company (Limited), a copartnership formed under the laws of Pennsylvania. The company consists of John A. Jackson, George Anderson and Evan T. Lewis. Mr. Jackson will settle all accounts of the old firm.

It was recently reported that Stanton & Davenport, stationers, &c., Wheeling, W. Va., had dissolved partnership. Mr. Davenport died on February 22 of this year, and on November 16 Mr. Stanton bought the fourth interest in the firm which Mr. Davenport held at the time of his death. Mr. Stanton continues the business as sole owner, under the style of Frank Stanton.

The Columbus Straw Paper Company filed articles of incorporation at Trenton, N. J., on December 6, with a capital stock of \$4,000,000. This company is to manufacture wood pulp boards, binders' boards, building paper, roofing felt and like goods. The company also has power to build mills and buy and sell. It will embrace all of the straw paper mills in Ohio, Indiana and Illinois, and about 50 per cent. of all the concerns in this country. There is \$1,000,000 of preferred 8 per cent. stock and \$3,000,000 of common stock. The incorporators are William C. Heppenheimer, of Hoboken; W. C. Taylor, New Utrecht, Kings County, N. Y., and Philip Beard, Connecticut. The company will begin operations with \$1,000,000 of paid up capital.

Failures.

The McCall Publishing Company, publisher of paper patterns and fashion books, at No. 46 East Fourteenth street, New York, is in the hands of Deputy Sheriff Fox, two attachments for \$1,015 and an execution for \$5,041 having been entered against the concern. The attachments are in favor of Charles S. Joslyn for \$515, and Henry J. Weber for \$500. The execution is in favor of Walter Logan on a note for \$5,000 dated July 9 at four months, and the company allowed judgment. The business was started by James McCall in 1870, and was incorporated April 4 last under New Jersey laws, with a capital stock of \$300,000. James D. Jones was president and George H. Bladworth treasurer. At the incorporation of the company the assets were valued, it is said, at \$200,000. The company had about 200 agents all over the country.

Fires.

The *Mirror* printing office, Montgomery, Pa., has been burned out.

Arno Strong, publisher of the *West Coast Trade*, Tacoma, Wash., has suffered a loss by fire. He was fully insured.

The *Industrial Free Press* building, Cedar Bluff, Ala., owned by F. Lawrence, valued at \$5,000, was destroyed by fire on December 8, with several other buildings. Uninsured.

The *Public Ledger* building, Philadelphia, Pa., was partially destroyed by fire on December 6. The losses are: Childs & Drexel, \$130,000, and \$30,000 to the tenants

of the building. The insurance on the building is \$160,000 and on its contents \$80,000. The fire destroyed the *Public Ledger* composing room, but the presses in the basement were saved by the fire patrol, who covered them with tarpaulins.

The Novelty Printing Company, Manchester, N. H., has suffered a loss of \$5,000 to presses and material by fire. Kelly & Morse, publishers, lose \$1,000. Both insured.

Fire almost destroyed the building at 30 Reade street, New York, on Tuesday, December 6. The flames broke out about 4 o'clock in the morning in the premises of the Gay Manufacturing and Publishing Company, and it was necessary to send out four alarms. The firemen were obliged to work from both Reade and Duane streets, breaking in the doors of the National Blank Book Company and Wilkinson Brothers & Co. on Duane street, in order to get lines of hose to the burning building. Water was poured on the ruins all day Tuesday and Wednesday. The fire burned downward and the heavy presses on the top floors crashed through the building, so that the entire structure was gutted. The rear wall is also down. The Boorum & Pease Company occupied the store and cellar, and its loss is figured at \$50,000, on which there is \$42,500 insurance. The loss of the Gay Manufacturing and Publishing Company is placed at \$60,000, on which the insurance is said to be \$20,000. The flames were confined to the building in which they started, but the tenants in the buildings on each side had the full benefit of smoke and water. In No. 28 the tenants were Montague & Fuller, bookbinders' machinery; H. D. Wade & Co., printing inks; Tension Envelope Company, sample envelopes, and W. N. Swett & Co., publishers. The losses to these were trifling, the latter having the heaviest and the amount about \$75. In No. 34 were the DeWitt Wire Cloth Company, wire goods; Milton C. Johnson & Co., manufacturing stationers, the upper floors being occupied by the Gay Manufacturing and Publishing Company. There was some small loss in this building by water, but the DeWitt Wire Cloth Company fortunately carried its stock of Fourdrinier wires at its factory, so that its paper mill supplies were not damaged. The Boorum & Pease Company at once opened a temporary office at No. 26 Reade street, where it will have full sample lines at once, and the Gay Manufacturing and Publishing Company has opened a temporary office at 27 Warren street. Frank R. Walker, paper dealer, who occupied an office in an upper story of No. 30, was also burned out.

Mortgages, Etc.

(In the appended list R. signifies a renewal of a pre-existing mortgage; B. S., bill of sale; and Real, a mortgage on real estate.)

EASTERN STATES.		Amount.
Dennis J. Hallissey, Boston, Mass. (B. S.)	400	
George S. Davis, Worcester, Mass.	1,600	
MIDDLE STATES.		
Victor E. Hopstein, Syracuse, N. Y. (B. S.)	180	
Jesse Carson, Philadelphia, Pa.	303	
WESTERN STATES.		
T. W. Hummel, Stockton, Cal.	1,300	
T. W. Hummel, Stockton, Cal.	1,300	
Louis S. Perlstein, Chicago, Ill.	708	
Henry Stivers (Leader), Des Moines, Ia. (Real)	10,000	
Charles Brandon, Mobile, Ia.	400	
Frederick N. Webster, Newton, Ia.	900	
P. S. Everhart, Red Oak, Ia. (B. S.)	400	
Alfred Langley, Sibley, Ia.	2,000	
D. A. Hurley, Junction City, Kan. (Real)	484	
Ed. R. Nash, Salina, Kan. (B. S.)	150	
Bacon Brothers Publishing Company, Detroit, Mich.	1,514	
John K. White, Saginaw, Mich.	1,300	
J. H. Daly & Son, St. Paul, Minn. (B. S.)	650	
Minnesota Posten Publishing Company, St. Paul, Minn. (B. S.)	500	
E. E. Bell, Falls City, Neb. (Real)	3,000	
Julius T. Pestner (Pestner Printing Company), Omaha, Neb.	1,000	
Springfield News Company, Springfield, Ohio	400	
Laben B. Lake, Toledo, Ohio (R.)	900	
Charles Merserve (Enterprise), Oregon City, Ore.	3,000	
A. H. Harris, Palouse, Wash.	175	
J. J. Murray (Murray & Co., Tribune), Pullman, Wash. (Real)	800	
Yen Ah, Spokane, Wash.	2,000	
George J. Buys, Walla Walla, Wash.	700	
SOUTHERN STATES.		
N. A. Boles & Co., Dallas, Tex. (T. D.)	—	
Press Printing Company, Chattanooga, Tenn. (T. D.)	4,237	
Holsington Publishing Company, Kansas City, Mo.	180	
G. E. Miller, Webb City, Mo.	700	
CANADA.		
H. A. Cropley, Fredericton, N. B. (B. S.)	—	
LIENS DISCHARGED.		
Hunter Bradford, Indianapolis, Ind.	1,481	
D. A. Hurley, Junction City, Kan. (Real)	400	
Everard Drisko, Boston, Mass.	3,000	

The plant of the Bremaker-Moore Paper Company, Louisville, Ky., is to be sold at auction on December 20. The buildings are of brick, three of them being devoted to the paper making portion of the plant and one to the manufacture of sulphite fibre.

Personals.

George P. Folts, of the Remington Paper Company, has returned from his trip to Denver.

Dr. Baum, of the Waldhof Company, who has been on a short trip to this country, sailed for home on the City of New York last Wednesday.

E. M. Rourke, of Manchester, England, sailed for home last Wednesday on the City of New York.

N. H. Furness has severed his connection with Eaton, Dikeman & Co., paper manufacturers, Times Building, New York.

Accidents.

J. B. Hart, superintendent of the paper mill of the Waits River Paper Company, met with accident recently under the following described circumstances: J. E. Sawyer came from the depot with a truck carrying a large cask of lime, weighing over 2,000 pounds. J. B. Munn was assisting him to unload it, standing between two planks which were to serve for a track. The cask started suddenly. Mr. Hart, who was standing near, was fearful that Munn would be crushed and sprang to his assistance. Munn seeing his danger dropped between the planks, and the cask passing over him, veered around toward Hart, catching the latter's leg, the whole weight resting on it. The leg was broken just above the ankle and the bone was badly crushed.

Obituary.

WILLIAM W. BAINBRIDGE.

William W. Bainbridge died of heart failure at the Hotel Cadillac, Detroit, Mich., on December 7. He was born in Brooklyn thirty-five years ago, and was the son of the late Charles T. Bainbridge and of Helen Bainbridge, who, with her sons Richard W. and Henry C., compose the firm of Charles T. Bainbridge's Sons. After leaving the public schools W. W. Bainbridge entered the employ of Porter & Bainbridge, the junior partner of which was his father. He afterward started in business with Bradley A. Hard, the firm being Hard & Bainbridge, afterward Hard & Parsons, and now Hard & Pike. After leaving this firm Mr. Bainbridge went on the road for Chas. T. Bainbridge's Sons, which house he represented at the time of his death. He was a clever salesman, and had a wide acquaintance throughout the trade. He leaves a widow and two children. He was a member of St. Nicholas Lodge F. & A. M., and of Brooklyn Council No. 72, R. A.

CYRUS CURRIER.

Cyrus Currier, the founder and head of the firm of Cyrus Currier & Sons, machinists, brass founders and manufacturers of paper making machinery, at Nos. 17 to 21 Railroad place, Newark, N. J., died the 7th inst. at his house, No. 556 Warren street. He was eighty-one years old. Mr. Currier over forty years ago founded the business. Police Commissioner Osceola Currier is one of the sons of Cyrus Currier, and he and another son were in business with their father. Mr. Currier was a strict churchman, and he was a liberal contributor to church work and charities of all kinds.

Thomas McF. Patton, of Thomas McF. Patton & Sons, booksellers and stationers, Salem, Ore., is dead.

F. R. Paquin, publisher, Brown's Valley, Minn., is dead.

C. S. Haviland, publisher of the *Weekly Phoenix*, Southington, Conn., is dead.

In Town.

C. S. Mayo, Lawrence, Mass.; F. H. Parks, Glens Falls, N. Y.; C. S. Wheelwright, Boston, Mass.; Z. Crane, Dalton, Mass.; G. C. Sherman, Watertown, N. Y.; H. T. Barton, Boston, Mass.; Charles Hamner, Burnside, Conn.

The Manufacturers Paper Company has renewed its contract to supply the Chicago *Tribune* with paper for the next three years.

Market Review.

OFFICE OF THE PAPER TRADE JOURNAL, FRIDAY, December 9, 1902.

THE MONEY MARKET.—The stock market was moderately active. The loan market was firm. Call loans on stock collateral ruled at about 3@4 per cent. Time loans were in fair demand, at 4½@5 per cent. for thirty days, 5@5½ per cent. for sixty to ninety days and 5½@6 per cent. for six months. There is a fair inquiry for mercantile paper. Rates are as follows:

	Sixty days.	Three months.	Six months.
Double named—			
First-class	5 @ 6	5 @ 6	5 @ 6
Good	6 @ 7	6 @ 7	6 @ 7
Single named—			
First-class	6 @ 7	6 @ 7	6 @ 7
Good	7 @ 8	7 @ 8	7 @ 8
Not so well known	8 @ 10	8 @ 10	8 @ 10

The market for sterling was strong in consequence of the small supply of both commercial and bankers' bills. Long sterling was influenced by the easier discount rate in London. Posted rates were \$4.86½ for sixty days and \$4.80 for sight. Actual rates were \$4.85½@4.85¾ for sixty days and \$4.87¾@4.88 for sight.

THE PAPER TRADE.—There is a heavy call for Manillas at present, and city trade in this line is very good, the approaching holidays of course acting as the stimulant. Writing and Book papers are in very good call, and in the latter grade some makers have eased up on prices a shade. News is active and Strawboards are in fair call. Straw Wrapping is in average call. The Western mills have formed a combination under the style of a corporation.

JUTE BUTTS.—The Jute Butt market is quiet and unchanged. Cabot, Ray & Co. give the statistical position as follows: "Imported to the United States, 1880, 412,889 bales; 1890, 481,071 bs.; 1891, 500,692 bs. Consumed in the United States, 1880, 417,889 bs.; 1890, 496,904 bs.; 1891, 567,972 bs. Stock, New York and Boston, January 1, 1892, 32,970 bs. Imported, New York and Boston, since January 1, 1892, 217,405 bs.; 1891, 557,848 bs.; 1890, 458,000 bs. Stock, New York and Boston, December 1, 1892, 46,198 bs.; 1891, 54,931 bs.; 1890, 58,499 bs. On passage for United States, November 14, 1892, and by cable to November 30, 1892, 136,045 bs.; 1891, 70,458 bs.; 1890, 228,336 bs. Visible supply to April 1, 1892, 182,243 bs.; 1891, 125,480 bs.; 1890, 286,835 bs. Consumption since January 1, 1892, 204,177 bs.; 1891, 553,167 bs.; 1890, 465,074 bs. Delivered to consumers past thirty days, 17,755 bs.; 1891, 22,284 bs.; 1890, 25,173 bs." The same firm speaks of the market as follows: "Sales on spot have been very light for the month, both Bagging and Paper quality. In futures the high Calcutta market has prevented business here. It is reported that November and December shipments have largely oversold in Calcutta, consequently several contracts have been cancelled here for these months' shipments. Deliveries for the month have been: Bagging manufacturers, 6,264 bs.; paper manufacturers, 4,491 bs. Spot stock, 10,126 Spinning, 36,072 Paper; 7,000 bales Bagging quality destroyed by fire."

WOOD PULP.—The conditions governing the Ground Wood market have not changed during the past week and the position of product and the range of prices are unchanged.

WOOD FIBRE.—The business in sulphite has been of large proportions for some time past, and contracts over 1898 have been made very freely. Domestic Soda is quoted at 3½@3¾c. for Bleached. Domestic Sulphite is moving at 2½@3¼c., as to quality, for Unbleached, and 3¼c. for Bleached. Foreign grades are quoted as follows: Unbleached Pine, soda process, 2.60@3.05c.; Bleached, same process, 3½@3.90c.; Unbleached, sulphite process, 3@3½c.; Bleached, do., 4½@5¼c.; Bleached Straw Pulp, 4@4½c. Imports this week aggregated 265 tons, being 139 tons from Antwerp, 25 tons from Bremen and 101 tons from Hamburg.

FOREIGN RAGS AND PAPER STOCK.—The market for foreign rags shows no change. There is some business being done in a small, quiet way, but buyers are limiting their purchases to actual wants. Aggregate imports for the week were 3,996 bales and 265 tons, being 870 bs. rags, 824 bs. papers, 265 tons chemical fibre and 2,302 bs. manillas. Ports of shipment and quantities are as follows: Antwerp, 139 tons chemical fibre; Aspinwall, 118 bs. rags; Bremen, 25 tons chemical fibre and 353 bs. manillas; Dundee, 132 bs. manillas; Glasgow, 22 bs. rags, 77 bs. papers; Hamburg, 97 bs. papers, 101 tons chemical fibre, 106 bs. manillas; Hull, 62 bs. rags; Liverpool, 59 bs. rags, 51 bs. papers, 217 bs. manillas; London, 609 bs. rags, 599 bs. papers, 750 bs. manillas; Newcastle, 574 bs. manillas; Rotterdam, 131 bs. manillas; Stettin, 89 bs. manillas.

DOMESTIC RAGS.—Collections continue slow and there is enough demand to keep stocks in good condition. Quotations range: Whites, 4½c.; Soiled Whites, 3¼@3½c.; No. 2's, 2½@2¾c.

BAGGING, &c.—There is no change to be noted in the market for Gunny Bagging. Business is of small proportions. In Mixed Bagging we note sales aggregating 300 tons at 1c. Manilla imports for the week aggregated 265 tons, being 139 tons from Antwerp, 25 tons from Bremen and 101 tons from Hamburg.

OLD PAPERS.—There continues a steady demand for top grades, and prices are regular. We quote: No. 1 Hard White Shavings, 3¼@3½c.; No. 1 Soft White do., strictly free from wood, 2½@3c.; Soft White do., ordinary, 2½c.; Old Ledgers, 2½@2¾c.; Solid Printed Books, 1.75c.; Mixed Shavings, No. 1, 1.25@1.30c.; Mixed Shavings, No. 2, 1@1¼c.

Extra No. 1 Manillas, 1.40c.; No. 1 Manillas, ordinary, 1.25c.; No. 2 Manillas .90@1c.; Light Book Stock, 1¼c.; Folded News, 75@77½c.; Mixed Papers, 50@55c.; Commons, 50@55c.; Bogus Manillas, 60@65c.; Straw Clippings, 60@65c.; Binders' do., 50@55c.

STRAW.—Straw is in moderate demand at steady prices. We quote No. 1 Rye at 60@65c.; No. 2 Rye at 50@55c.; Short Rye at 40@45c.; Oat at 40@50c.

ROSINS.—Rosins are quiet but steady. We quote Common to Good Strained, \$1.52½@1.57½; E, \$1.65@1.70; F, \$1.75; G, 1.80; H, \$2.05; I, \$2.35; K, \$2.70; M, \$3.30; N, \$3.80; W. G., \$4.40.

CHEMICALS.—Trade is of fair proportions. Under date of November 23 J. P. Brunner & Co. say of the Liverpool market: "With regard to heavy chemicals generally there is little of interest to report, the actual transactions recorded being small. Soda Ash is scarce for the balance of this year, and the union declines to quote except for retail lots. The nominal quotations are as follows: Caustic Ash, 48 per cent., £5 6s. 9d. per ton upward; 57 to 58 per cent., £6 7s. 6d. per ton upward; Carb. Ash, 48 per cent., £5 7s. 6d. per ton upward; 58 per cent., £6 10s. per ton upward; Ammonia Ash, 58 per cent., £6 7s. 6d. per ton upward—all net cash. There are American inquiries in the market for 1893 delivery, but the union declines to quote at all for forward delivery at present. Soda Crystals dull at about £3 3s. 9d. @3 5s. per ton, less 5 per cent. Caustic Soda, flat, but quotations are nominally unchanged, as follows: 60 per cent., £2 6d. per ton; 70 per cent., £10 5s. per ton; 74 per cent., £11 5s. per ton; 76 per cent., £12 2s. 6d. per ton, upward—net cash. For parcels under 10 tons, 5 per cent. per ton extra is charged. For 1893 delivery, quotations range from 10s. @20s. per ton under values, according to market. Bleaching Powder is quiet at nominally about £7 12s. 6d. @7 15s. per ton, net cash, for hardwood casks. Bicarb. Soda is steady at £6 15s. per ton, less 2½ per cent. for one cwt. kegs, with usual allowances for larger packages." Bleaching Powder is in free sale for shipment, and a moderate business is being done on spot. Alkali is active and Caustic Soda is quiet, as is also Sal Soda. During the week sales have been as follows: 300 cks. Bleach on spot at 2½c., 200 tons Soda Ash at 1½@1.60c., 250 tons 58 per cent. Alkali at 1¼@1.50c., 100 drums Caustic Soda at 3.10c., 300 bbls. Natrona Porous Alum at 2½c., 100 bbls. Lump Alum at 1¼c., 200 bbls. Keystone Alum at 1¼c., 5 cases German Ultramarine at 17¼c., 100 bbls. Ground Alum at 1¼c.

CHINA CLAY.—Competition is so active among dealers that it does not augur well for present business. Prices continue, however, steady at \$18@18 per ton as to quantity and make, but for round lots prices would have to be shaded.

TWINES.—A steady demand for twines continues and prices are regular. Quotations are as follows: Cordage—Manilla Rope, half inch, 12¼c.; Sisal Rope, half inch, 11¼c.; New Zealand Rope, half inch, 6¼c.; Jute Rope, half inch, 7c.; Sisal Hay Rope, 8¼c.; Sisal Lath Yarn, fine, 9¼c., and medium, 9¼c.; Jute Lines, 7½c.; Jute Ready, 7c.; New Zealand Hay Rope, 6¼@7¼c.; New Zealand Lath Yarn, fine, 9¼c., medium, 8¼c. Twines—Hemp, 4½ and 6 B Russia, 12c.; 4½ and 6 A American, 12c.; 4½ and 6 D Jute, 9½c.; 4½ and 6 L Jute, 9c.; Hemp Ball, 18 B C, 17c.; 18 C, 15c.; Russian Hemp Hay Rope, 9c.

COAL.—The market is quiet, with a demand for Anthracite in moderate lots, and Bituminous moving off in good shape at all points. Chicago reports that orders for Anthracite are not plentiful. At the East trade is quiet. The New York market is not active.

EDWIN BUTTERWORTH & CO.,
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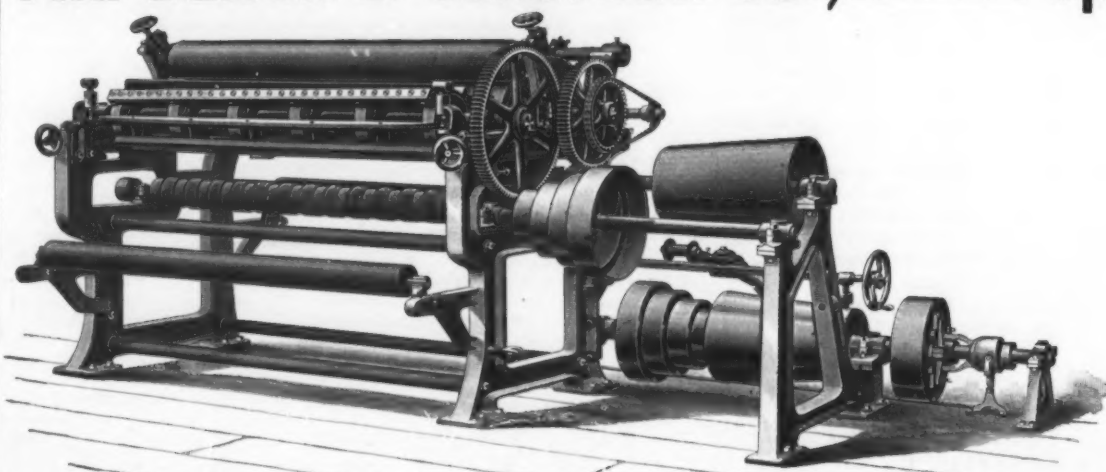
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My attention having been called to the fact that certain parties are infringing certain Letters Patent granted to me, to wit: No. 212,866, dated March 4, 1879, covering a new form of carpet lining, and No. 225,698, dated December 21, 1880, covering the method of and apparatus for making the same, this is to notify all such persons, whether manufacturers or dealers, that any infringement of either of said patents will be prosecuted to the full extent of the law. MOSES NEWTON, Patentee.

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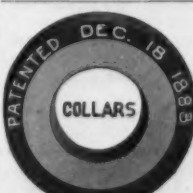
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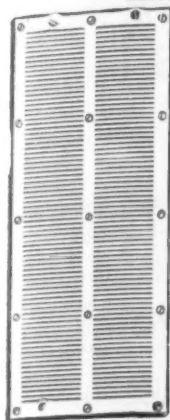
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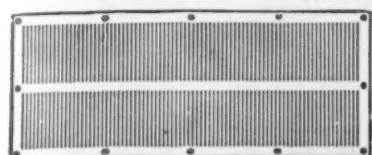
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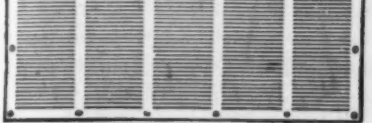
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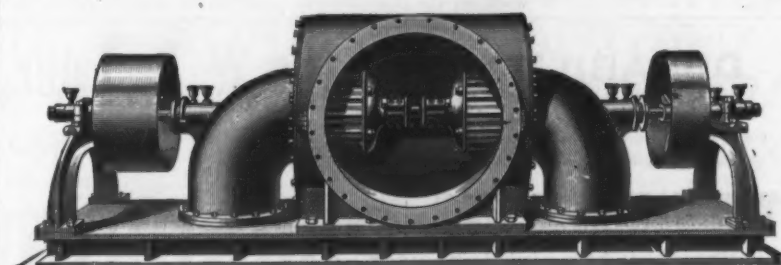
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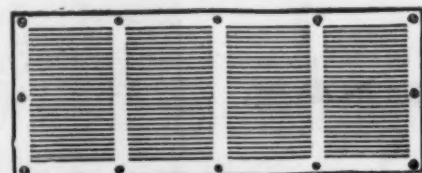
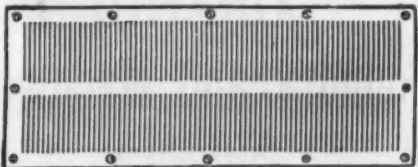
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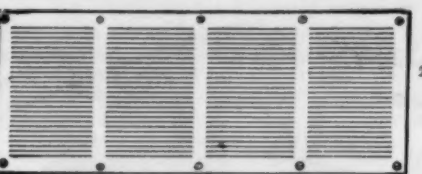
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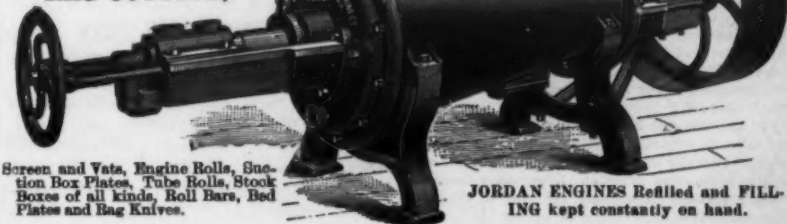
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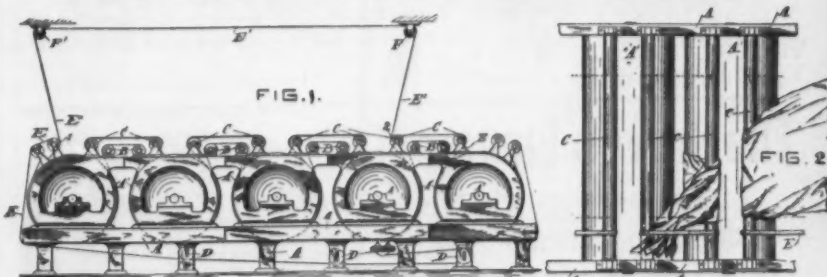
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Rags and Cholera.

The following letter is self explanatory:

NEW YORK, November 23, 1892.
To the Editor of the New York Medical Journal:
I am under very great obligations to Dr. Allan McLane Hamilton for a suggestion made in his letter published in your issue of November 19. In the correspondence I have had with Dr. Hamilton as secretary of the medical advisory committee of the Chamber of Commerce, it has been my contention that, inasmuch as there are no cases on record of the importation of the germs of cholera in baled rags, it is unfair and unjust to a great commercial interest to decree the exclusion or the disinfection by an expensive process of all rags, whether they come from infected ports or not. In the letter referred to Dr. Hamilton says that I have evidently neglected to avail myself of his advice, that I consult the medical authorities, and adds:

"He ignored the fact recognized and acted upon by all civilized people, that not only cholera but other infectious diseases are carried in textile fabrics that have come into bodily contact with infected subjects. He could have easily found the information he desired in the United States Government Report of the Cholera Epidemic of 1873, or in accessible authorities."

While I have by no means been so neglectful of the accessible authorities as Dr. Hamilton intimates, his reference to the Government Report of the Cholera Epidemic of 1873 affords me an opportunity to call his attention to a significant passage in that valuable volume. The first paper printed in the Government Report is by John M. Woodworth, at that time supervising surgeon of the United States Marine Hospital service, upon the "Introduction of Epidemic Cholera through the Agency of the Mercantile Marine: Suggestions of Measures of Prevention." From Dr. Woodworth's paper I quote the following paragraph (page 9):

"It has not yet been demonstrated that merchandise, in contradistinction to passengers' luggage, is ever the medium of conveying the cholera poison across the Atlantic. Even upon infected vessels the cargo is so protected from any chance of contact with cholera infections that the risk of importation from this source is of little practical moment. Of course, upon a very foul ship, carrying stowage passengers suffering from cholera, there is a bare possibility of such contact; but no instance of this kind has ever been known to occur."

A diligent examination of this volume will convince Dr. Hamilton that whatever "fabrics" are referred to in its pages as the medium of transmitting infection the term is used to cover, not merchandise—certainly not baled rags—but the wardrobe and personal effects of passengers, especially of stowage passengers.

To the testimony of Dr. Woodworth I may add the statement made at the meeting of the American Public Health Association in 1893 by that eminent authority Dr. John S. Billings, as quoted in your issue of November 5: "I say that there is no evidence that baled imported rags have been the cause of disease in this country." As you justly say, this statement of Dr. Billings remains unrefuted. The testimony of Dr. Charles F. Withington in the eighteenth annual report of the Massachusetts Board of Health and that of Dr. Koch may be adduced to the same effect. In short, I challenge Dr. Hamilton to bring forward any authentic evidence that cholera infection has ever traversed the Atlantic in imported rags.

Dr. Hamilton declares that the public use of his letter was "entirely unauthorized." I cannot believe the point well taken. Dr. Hamilton is secretary of the medical advisory committee of the Chamber of Commerce.

His committee gave a professional opinion to the Chamber of Commerce, of which I am a member. I wrote to him asking for the medical evidence on which a certain statement in that opinion was based. The tone of the letter he sent to me in reply and of the letter he addressed to your journal is equally surprising and unsatisfactory; in my view the correspondence was official, not personal. Had Dr. Hamilton's letter been marked personal or private it would have been so treated by me. He certainly has neither refuted my assertion nor sustained his own. Yours respectfully,

AUGUSTINE SMITH.

Legal Decisions.

[SPECIALLY REPORTED FOR THE JOURNAL.]

Liability of Partners Among Themselves.
—A partner who sold his interest in the partnership to a copartner, taking from him an agreement to pay the partnership debts, cannot recover against such copartner for debts which he was afterward compelled to pay for the copartner to partnership creditors, the copartner having received a discharge from the same debts by insolvency proceedings in which such creditors proved their claim and received dividends thereon. — *Fernald v. Clark*, Supreme Judicial Court of Maine, 24 At. Rep. 823 (71).

Conditional Extension of Time. — An agreement by the holder of a promissory note to give time, on condition to be performed by the principal, will not discharge the surety, unless the condition be performed in such manner as to operate as an

absolute agreement to extend the time of payment. As where a promissory note was given for \$370, payable in twelve months, and it was agreed that the maker of the note might continue in the service of the person to whom it was given "so long as he did well," and pay from his wages \$24 a month on the note. When this condition failed, the agreement failed with it; so that, as the agreement was not absolute, no agreement for extending the time of payment on the note existed when the day of payment came. Had the condition been kept, the result might be otherwise; for, when the note fell due, had the time of payment been extended for a single day, the suretyship would have no longer remained "sure," and the sureties need not "smart for it." — *Pinkham v. Thorn*, Supreme Judicial Court of Maine, 24 At. Rep. 718 (179).

General Notes.

Yesterday morning a teamster took one of the single trucks of G. W. Millar & Co. and went to Pier 29, North River, for a load, taking with him three rolls of manilla paper. At the dock he left the truck in order to get the goods for which he had been sent, and when he returned to the street his horse and truck and paper were gone, having been taken by thieves.

Proceedings were recently brought by William J. Hoyt, of Hillsborough, N. H., in his own right and as administrator of the estate of John Hoyt, deceased, and J. Horne & Sons Company, of Lawrence, Mass., to have the Downingtown Manufacturing Company, Limited, and the company's officers, A. P. Tutton and Guyon Miller, of East Downingtown, Pa., enjoined from the making of an alleged infringement on the complainant's patented improvement in rag engines for paper making. The matter was subsequently argued upon a motion for a preliminary injunction. Judge Dallas has filed an opinion refusing the application.

A temporary injunction has been issued restraining the Coogan & Pusey Company, of Windsor Locks, Conn., from using upon its goods an imitation of the label and trade mark of C. H. Dexter & Sons, of Windsor Locks. C. H. Dexter & Sons allege in their complaint that the defendant is making a grade of paper known as grass bleached silver tissue, of a quality inferior to that manufactured by them, and is putting on to the same a label similar to that of C. H. Dexter & Sons, which they claim is calculated to deceive the public and mislead the purchasers and consumers of the plaintiffs' goods.

The State Trust Company, of New York, has issued execution for \$102,000 against Henry D. Cone, of Housatonic, Mass., and the sheriff is now in possession of Mr. Cone's property, and if the matter is not settled will sell the property on December 22. The officers of the State Trust Company in speaking of the matter, said: "This claim which we represent grows out of Mr. Cone's railroad matters, and we may say we have \$5 security for every dollar of debt. Mr. Cone has valuable realty there, and if he would take hold and settle the matter he probably would stand \$500,000 ahead of the world. It does not affect the Owen Paper Company; although it may possibly lead to a reorganization should Mr. Cone's property be sold."

The estate of John H. Southworth was plaintiff and the John Morris Company defendant in an action at law which has just been tried in Chicago. The plaintiff was given a verdict, the defendant taking an appeal. It will be remembered that the boilers in the establishment of the John Morris Company exploded in January, 1890, killing an employee and injuring several others, besides damaging the building and stock materially. Immediately after the explosion John Morris, president of the John Morris Company, telegraphed to J. H. Southworth, owner of the building, to know if his company should proceed with the repairs. Mr. Southworth was seriously ill and died a short time afterward, and his son, supposing the lease made provision as to repairs, telegraphed back to go ahead with the repairs. After reflection, and thinking that

he might have made a mistake, he went to Chicago and notified the John Morris Company that he gave the authority for it to go on with the repairs under the conditions of the lease only, and that if it understood differently it should suspend work on the

repairs at once. He also notified it that he had no authority to represent his father. John Morris contradicted the latter part of this testimony very flatly when he gave his evidence, by saying that when young Southworth came on he acquiesced in all

that had been done. The amount involved is something near \$10,000. In his testimony Mr. Morris said that he owned no stock in the John Morris Company, his relations with the company being that of a salaried officer only.

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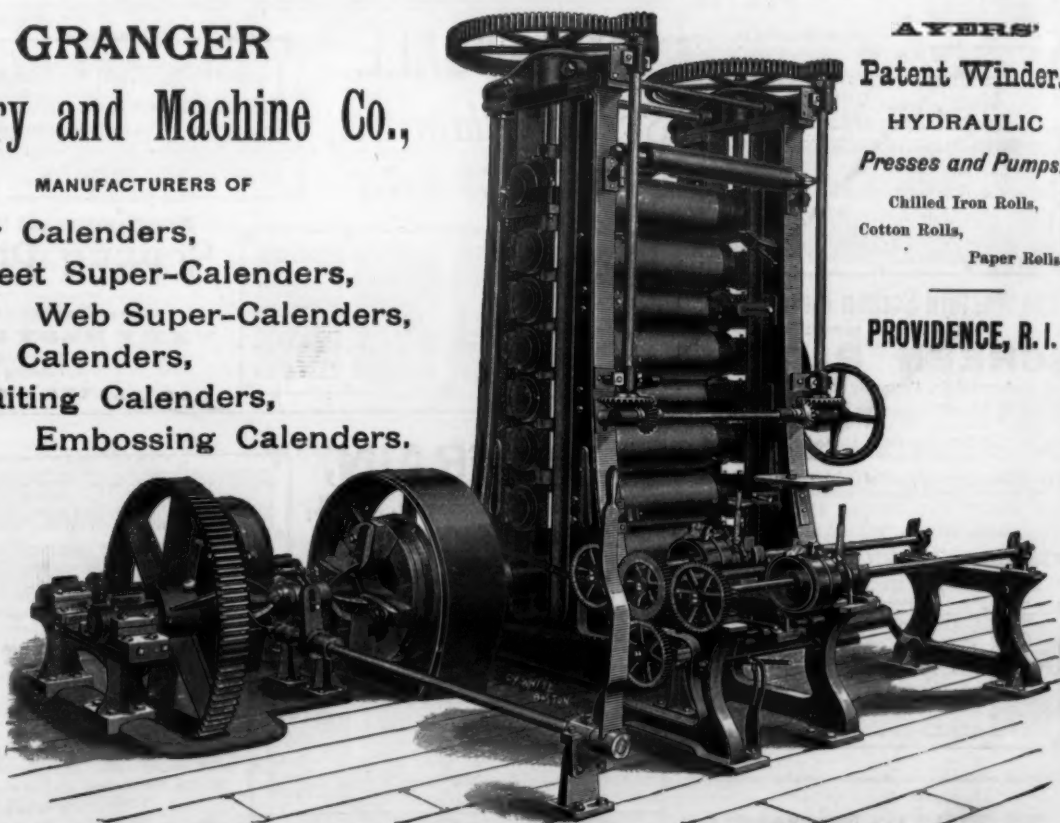
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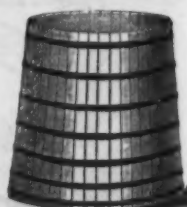
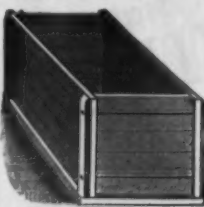
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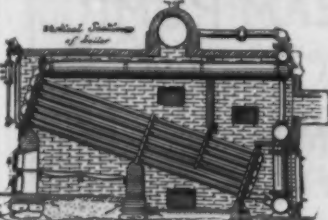
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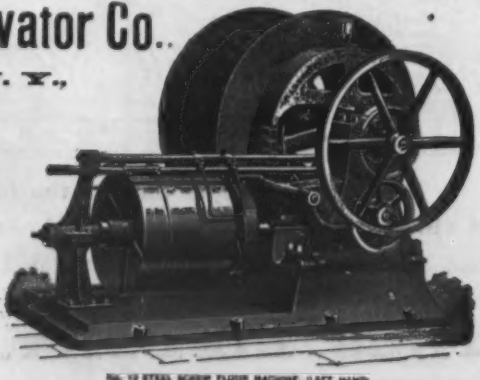


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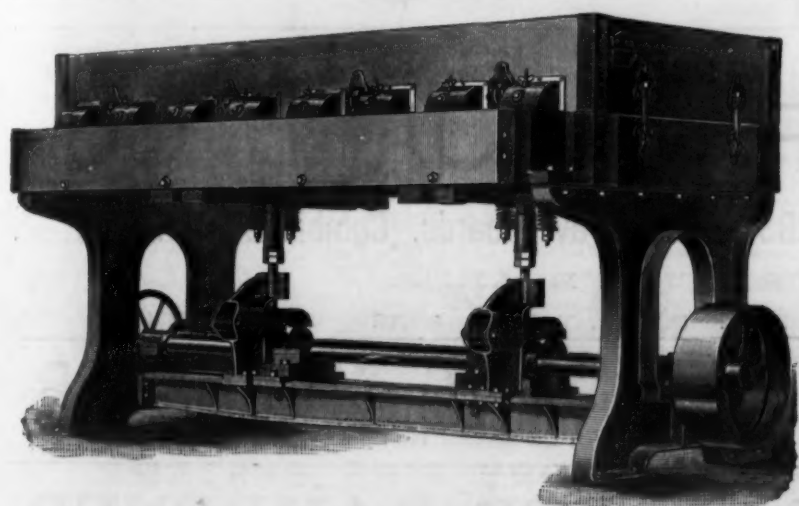
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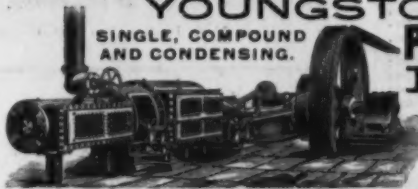
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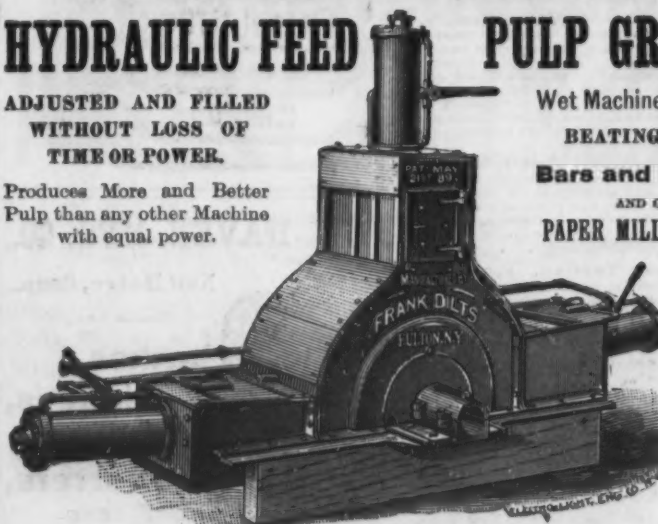
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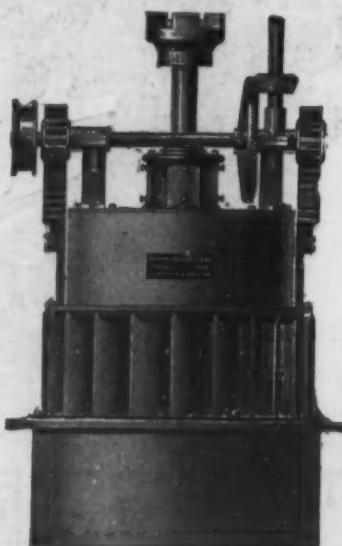
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(Continued from first page.)

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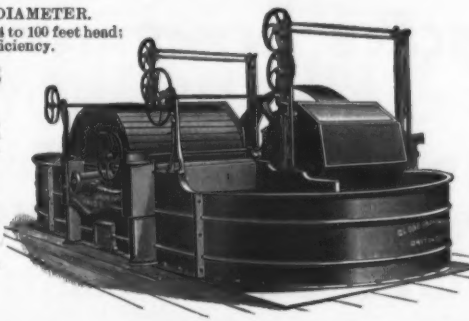
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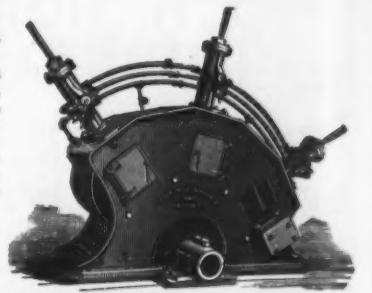
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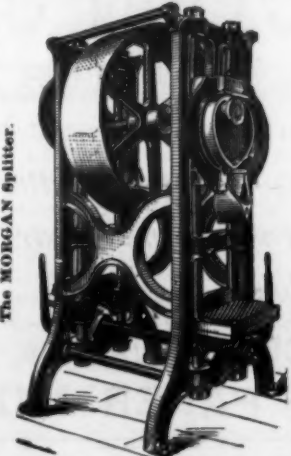
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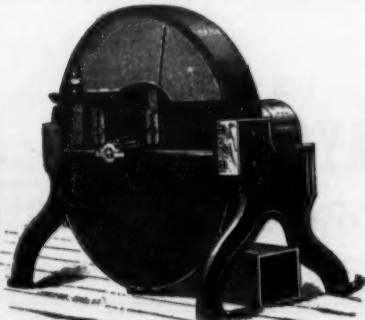
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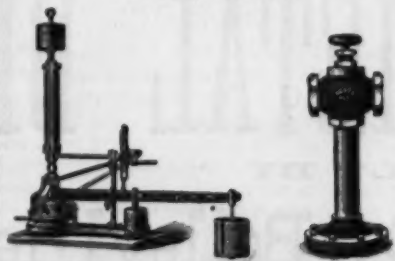
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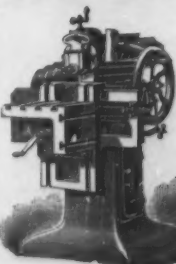
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Lathes,**Planers,****Drills,****Slotters,**

ETC.

**"AEROPHOR" PAPER DAMPENER.**

Built for any position, and to dampen ONE or BOTH sides of the sheet, the size of the Dampener being determined by the width of your calender face.

ADOPTED BY THE LEADING BOOK, NEWS, COLORED AND MANILLA MILLS.

DOES ELECTRICITY ANNOY YOU?

The "Aerophor" Dampener Destroys Electricity.

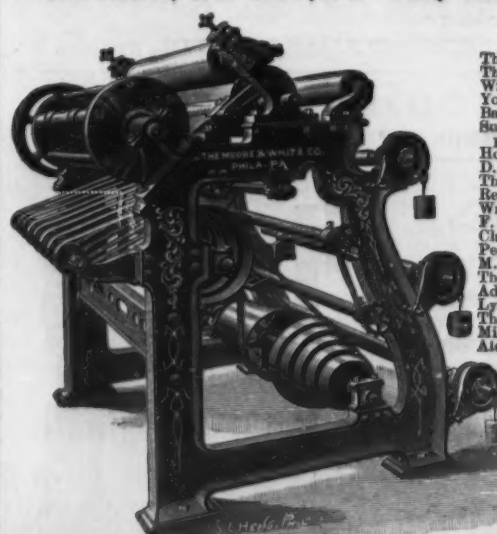


Dampening One Side of Paper.

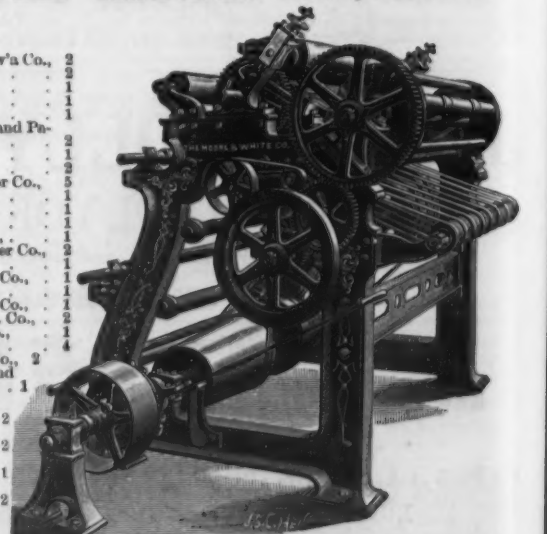
THE U. S. AEROPHOR AIR MOISTENING AND VENTILATING CO.,
111 Pine Street, Providence, R. I.**THE MOORE & WHITE PAPER CUTTER.**

CONTINUOUS FEED.

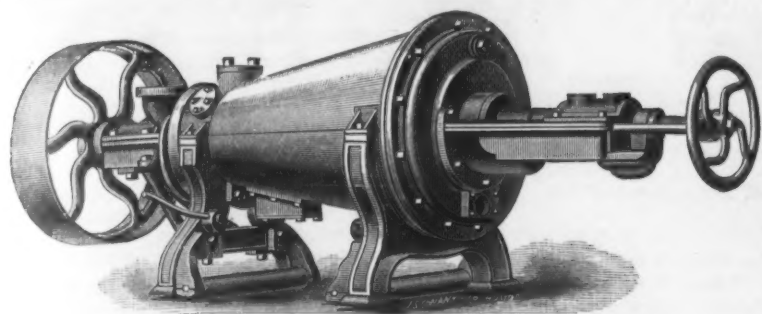
Cuts Perfectly Even and Square. Easily Changed from Sheets to Rolls. Built in All Sizes and Fully Guaranteed.



IN USE BY
The New York and Pennsylvania Co., 2
The Pusey & Jones Co., 1
Wm. Heyser, Agent, 1
York Haven Paper Co., 1
Bayless Paper Co., 1
Bosquehanna Water Power and Paper Co., 1
Hon. J. R. McPherson, 1
D. M. Bare & Co., 1
The Singery Pulp and Paper Co., 1
Reading Paper Mills, 1
Wm. Barber, 1
F. G. Weeks, 1
Clarion Pulp and Paper Co., 1
M. Dalton, 1
The Pennsylvania Pulp and Paper Co., 1
The Buena Vista Paper Mfg. Co., 1
Michigan Sulphite Fibre Co., 1
Alexander Balfour & Sons, 1
Wanaque River Paper Co., 1
Willamette Pulp and Paper Co., 1
The Morrison & Cass, 1
The Andrew L. Fen- 2
nessy Co., 2
The Antietam Paper 1
Co., 1
The West Virginia 2
Paper Co., 2

**THE MOORE & WHITE CO., Philadelphia, Pa.**

PAPER MILL MACHINERY. Friction Clutches. Cut-off Couplings.



EMERSON MANUF'G CO.

MAKERS OF THE BEST JORDAN ENGINE IN THE WORLD.

GREATEST PRODUCTION.
FINEST PAPER.
LONGEST WEAR.

IN USE IN MANY OF THE LEADING
MILLS OF THE COUNTRY.

BEATING ENGINES.

Roll Bars, Bed Plates.



OUR JORDAN ENGINE,

Showing our Patented Improvements, **THE ROLLERS** and **IMPROVED HEAD.**

This Head will increase the wear of the Jordan 25 per cent.

WRITE FOR PARTICULARS.

RAG KNIVES.
JORDAN BARS AND FILLING.
JORDAN ENGINES REFILLED.

PATENT ROLLERS,
Jordan, Moved by One Man.

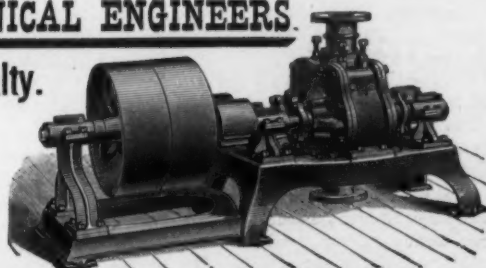
ESTIMATES MADE FOR ALL PAPER MILL
MACHINERY.

LAWRENCE, MASS.

E. D. JONES, SONS & CO.

MILLWRIGHTS AND MECHANICAL ENGINEERS.

Paper Mill Plans a Specialty.



PITTSFIELD, MASS.

ALSO MANUFACTURERS OF

Improved Patent Rag Engines, Dusters, Elevators, Etc.

CROCKER'S

Rotary Pumps and Turbine Water Wheels.

VERTICAL AND HORIZONTAL ENGINES. SHAFTING, PULLEYS, HANGERS AND GEARING.

CYLINDER WASHERS.

FOR EFFICIENCY AND
DURABILITY UNEXCELLED.

All Iron and Copper except the Sash.

THE BEST TURNING RAG ENGINE BUILT.

Double Lighters, Relief Lever, Adjustable Breast and Fall, Iron Rolls.

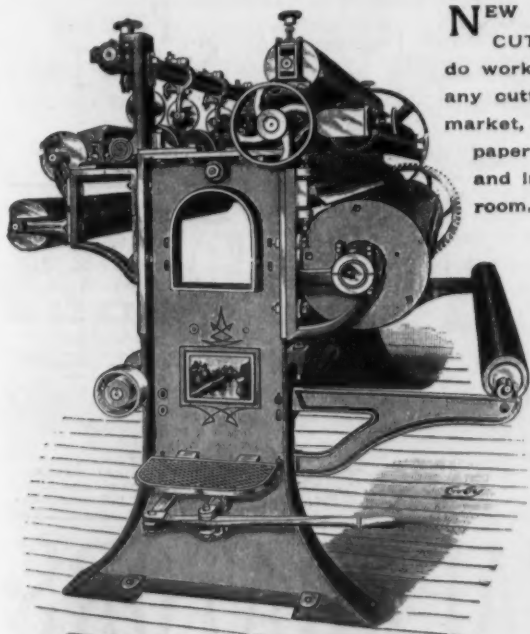
GENERAL PAPER MACHINERY,

DOWNINGTOWN MFG. CO.,

East Downingtown, Pa., U.S.A.



Catalogue for 1893 sent
on application.



NEW PATTERN
CUTTER. Will
do work equal to
any cutter on the
market, both on
paper machine
and in finishing
room.

Paper Mill Machinery.

FOURDRINER AND CYLINDER
MACHINES.

Very Substantial and Convenient Designs, Embody-
ing all Late Desirable Improvements.

IRON AND WOOD TUB BEATING ENGINES.

Wet Machines, Rag Cutters, Duplex and Triplex
Stuff and Suction Pumps, Double Suction Water
Pumps, Etc., Etc.

ESTABLISHED 1858.

BELOIT IRON WORKS,

BELOIT, WIS., U. S. A.

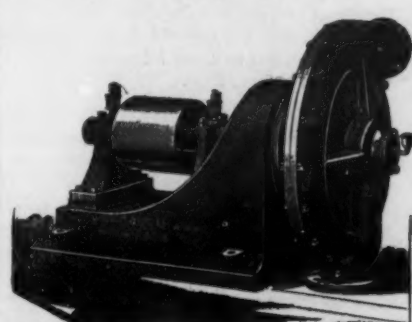


FIG. 231.
POP SAFETY VALVE.

POP SAFETY VALVES.

You will stop using the other man's when once you have tried **Lunkenheimer's Improved Pop Safety Valve.** Warranted the best in the market. Supplied by dealers. Write for illustrated Catalogue of above and other valuable steam specialties of interest to steam users. Mention this paper.

THE LUNKENHEIMER BRASS MFG. CO., Cincinnati, Ohio, U. S. A.



A NEW ^{Improved}

Double Suction PUMP.

IN IRON, BRASS OR BRONZE.

STANDARD SIDE SUCTION PUMPS
Always in Stock.

OVER 15,000 PUMPS IN USE.

Buyers are cautioned against circulars or other
representations of Centrifugal Pump makers re-
garding "Baldwinsville" Pumps, as we are the only
manufacturers so engaged in this line of business
at this place, and are the sole makers under the well-
known Heald & Sisco patents. Send for catalogue.

MORRIS MACHINE WORKS, Baldwinsville, N. Y.



THE IMPROVED JENKINS BROS. VALVES

Have the Keyed Stuffing Box and Disk Removing Locknut.

NONE GENUINE unless they bear our TRADE MARK.

Cost no more than the Imitations. Send for Prices and Discounts.

JENKINS BROS.,

71 John Street, New York.
105 Milk Street, Boston.

31 N. Fifth St., Philadelphia.
21 N. Canal St., Chicago.



NEW CASTLE PULP STONES

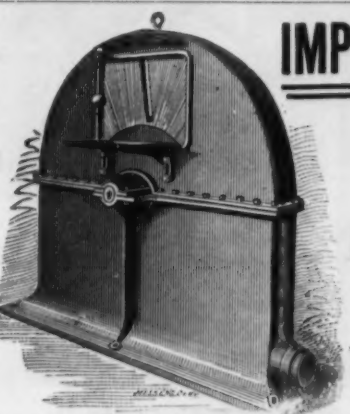
A SPECIALTY.

Grindstones of all kinds,
mounted and unmounted, for
Mills, Factories, Machine
and Repair Shops.

OFFICE AND YARD:
2 Sleeper Street, Boston Wharf.

BOSTON.

Specially selected GRIT
for
Paper Knife Grinding.



IMPROVED BARKERS

FOR

Ground Wood Pulp Mills.

ALSO

HOOVER'S ECCENTRIC PULP
SCREENS.

TICONDEROGA MACHINE CO.

TICONDEROGA, N. Y.

UMPHERSTON PATENT WASHING AND BEATING ENGINES.

— 353 —

In most successful use (138 in the United States) on **all grades of stock**,
Felts, Wrappings, News, Print, Book, Blottings, Rope, Tissues and the finest
Writings and Ledger Papers.

FOR FURTHER PARTICULARS APPLY TO

THE J. MORTON POOLE COMPANY,

Sole Makers for America, WILMINGTON, DELAWARE.

(Continued from page 1100.)

Thick or thin sheathing for roofs; materials used for roofs.

Self closing tin clad doors, with stone sills for same, to all adjoining rooms.

Thorough system of reliable sprinklers (with two or more sources of supply), especially over heavy and out of sight bearings, as well as over vertical shafts from basement.

Duplicate system of fire pumps, steam and water; drilled fire organization. Amount of fire appliances; distribution of same. The knowledge that the apparatus is always perfect and in working order. Plenty of fire casks and buckets well filled. Strict rules (see that they are enforced) as to the burning or other safe disposal of waste or wiping rags.

Character of the artificial light. If by electricity see that nothing but first-class materials and good workmanship are used and employed in putting up the wiring. No wood should be used in securing electric wires and fixtures.

Proximity of other risks.

ALLEN BROTHERS COMPANY,
Marcus C. Allen, Secretary.

THE WATERTOWN PAPER COMPANY,
WATERTOWN, N. Y., December 3, 1892.

We do not consider existing rates, as we have them, much too high—a half of 1 per cent.

We consider the mutual plan preferable on account of the low rates, and also because the companies insist upon ample protection before they will take the insurance, and this makes the risk almost fireproof, which, for one who does not care to burn out, is as much for his interest as the insurance company's. The rigid rules which the mutual companies insist upon not only make the risk less for the company, but put the parties so insured in a much more secure position.

Rags, dust and, above all, oily rags, should be closely watched and taken care of, so that they can do no damage, not only those to be found in the rag departments of paper mills, but also the cotton waste and rags used in wiping off machinery. Oily cotton waste is much more combustible than oily rags; both are very much so, however, especially when saturated with linseed oil. Thorough cleaning and keeping nooks and corners cleaned out where any rubbish can accumulate and fires start therefrom is essential, and waste paper, such as is commonly called broken, must be taken care of. Carpenters' shavings should be looked after, and hot boxes prevented, and probably a good many other things which we might enter into, which would cover considerable space.

WATERTOWN PAPER COMPANY.

KIMBERLY & CLARK COMPANY,
NEENAH, Wis., December 5, 1892.

First, we consider the existing rates made by the stock companies too high, taking into consideration the high grade of construction in most of the mills in this locality.

Second, we consider the New England mutuals preferable if the construction is standard and fully equipped with a sprinkler system, because the net cost of insurance is less.

Third, we know of no elements to be taken into consideration except fire—accidental and spontaneous. The latter sometimes occurs in rag storing rooms and other parts of the mill, unless the oily rags are properly taken care of and placed in iron tanks or fireproof receptacles.

F. C. SHATTUCK, Treasurer.

RICHMOND PAPER MANUFACTURING CO.,
RICHMOND, Va., December 5, 1892.

Our mills are insured in the stock companies. Several years ago we had a very disastrous fire, and before rebuilding we investigated carefully the cost of fitting up our buildings as required by the mutual companies, and found that the additional expenditure was so large that the interest on the money invested and the cost of maintenance more than overcame any saving in rates. It is fair to say, however, that in rebuilding our works we so separated the different departments and so constructed the buildings as to enable us with safety to carry a large part of our risk ourselves. As a demonstration of the wisdom of this we have since had a fire which entirely destroyed our rag and assorting department, and yet the other portions of our mills were not injured in the slightest degree; and we did not lose a day from work, as we rented a warehouse in town, at which we did our assorting until we rebuilt. We carry a full line on this portion of our works, believing it to be the only hazardous part of our risk.

Where properly built and separated as above described, we believe that the heater buildings and machine buildings of a paper mill are a safer risk than store property, inasmuch as the great amount of water used and the constant protection night and day of the workmen constitute a great safeguard to the property.

A. H. CHRISTIAN, JR.,
Secretary and Manager.

WANTED—BY A PRACTICAL PAPER MAKER
situation as foreman; well up in time and all grades of millinery paper or news; twenty years' experience. Address C. C. C., care Journal.

TO PAPER MANUFACTURERS—THE
advertiser, a paper maker of many years' experience in manufacture of all classes of paper, including book, news, manilla, tissues, writings, colors, etc., is open to an engagement as superintendent, manager, foreman, etc., in large or small mill; thoroughly understands stock, chemicals, and machinery. Replies to SOREL, care Journal.

Manufacturing News.

EASTERN STATES.

The Mittineague Paper Company, Mittineague, Mass., has put in a Marshall "Perfecting" engine.

Two 96 inch "Aerophor" paper dampeners have been recently ordered by the Berlin Mills Company, of Berlin Falls, N. H., for the dampening of both sides of paper.

The Carew Company, South Hadley, Mass., has put in a second Marshall "Perfecting" engine.

The United States Aerophor Air Moistening and Ventilating Company, Providence, R. I., is building a 78 inch and a 96 inch "Aerophor" paper dampener for the Willamette Pulp and Paper Company, Oregon City, Ore.

The Glen Manufacturing Company, Berlin Falls, N. H., has obtained an injunction against the Coos Pulp and Paper Company, of Groveton, restraining the latter from starting up its mill. It is said to be the result of some misunderstanding regarding the reorganization of the latter company, the Glen Company holding some of the original stock, and it is thought it will be satisfactorily settled so as to allow the mill to start up in a short time.

MIDDLE STATES.

The Ancram paper mills, Ancram, N. Y., which have been shut down, will soon start up.

The new mill of the Treadwell's Mills Pulp and Paper Company, Plattsburgh, N. Y., will soon be ready to run.

Watson N. Sprague, Stillwater, N. Y., is now running his mill on leather board.

The Glens Falls Paper Company, Glens Falls, N. Y., is building a water tower for fire protection, at its Fort Edward mills.

The new chimney of the Herkimer Paper Company, Herkimer, N. Y., is finished. It is 150 feet high and the mill is now ready for any condition of water. Under the present management the mill has increased its production in less than a year from 12½

tons to 20 tons daily, and is making an excellent quality of roll news paper.

A wood pulp mill is to be built at Ausable Forks, N. Y.

The Fulton Paper Company, Lower Oswego Falls, N. Y., has started up its mill, which has been shut down three months for repairs.

The Jessup & Moore Paper Company, Wilmington, Del., has placed an order with the United States Aerophor Air Moistening and Ventilating Company, of Providence, R. I., for an 86 inch "aerophor" paper dampener to dampen one side of paper. This is the second "aerophor" ordered by this company.

The Thomson Pulp and Paper Company, Thomson's Mills, N. Y., has been granted a franchise to construct a free bridge across the Hudson River, between Schuylerville and Northumberland.

A one story addition, 50x85 feet, is to be built at the Fandango Mills, Milburn, N. J., and a new hydraulic press is to be put in.

WESTERN STATES.

An extension to J. B. Streeter & Sons' paper mill, Allegan, Mich., is to be built.

The Lincoln Paper Mill, Lincoln, Neb., has been turned over to the new combination known as the Columbus Straw Paper Company. The consideration is said to have been \$100,000.

Work on the sulphite fibre mill at Denver, Col., was started on November 28.

The Combined Locks Paper Company, Combined Locks, Wis., has put in a third Marshall "Perfecting" engine.

The Wisconsin River Paper and Pulp Company, Stevens Point, Wis., has added four heavy "New England" wood pulp grinders to its plant, which is its second order for these machines. They are furnished by Olin Scott, Bennington, Vt.

The new paper mill at Pullman, Wash., will be ready for operations about March 1, 1893.

A paper mill is being talked of at Lindsay, Kan.

The works of the Barton Bell Company,

Marion, Ind., have been bought by the Crosby Paper Company and will be refitted to manufacture paper.

SOUTHERN STATES.

The new paper mill on Sucker Branch, near Ellicott, Md., is being actively pushed.

D. Beckley's new paper mill at Beckleysville, Md., will be started up, it is anticipated, about December 15.

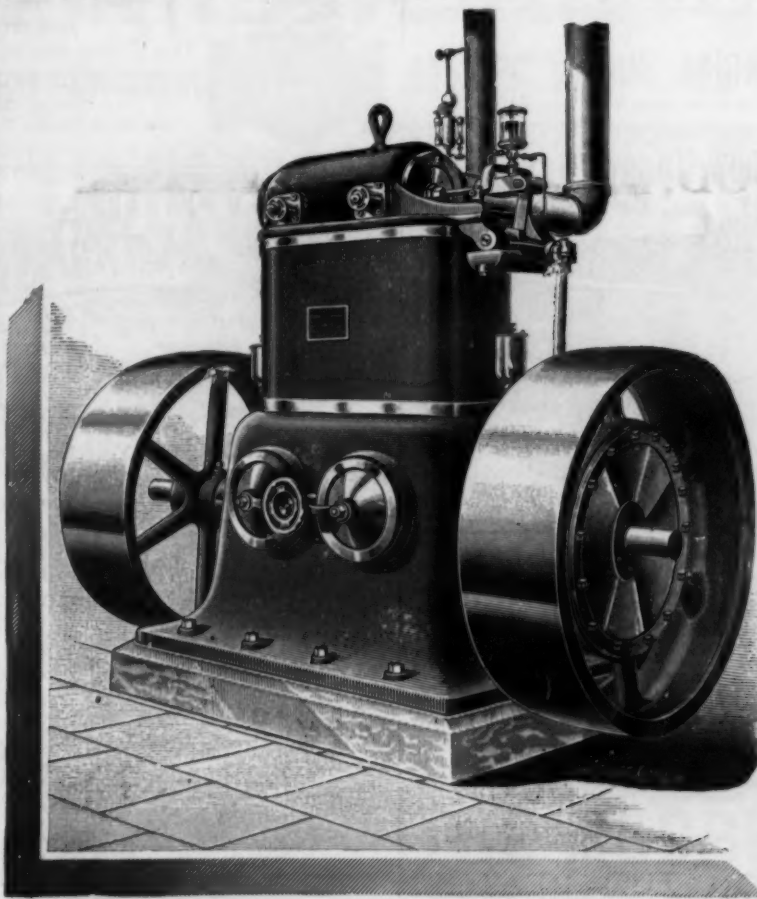
CANADA.

The Maritime Sulphite Fibre Company, of Chatham, New Brunswick, Canada, is adding twelve new dryers, 36x86 inches, to its 90 inch Fourdrinier machine, making, with the ten now on the machine, twenty-two in all. These dryers, which were built by John Bertram & Sons, of Dundas, Ont., are the first ever made in Canada.

Judgment for \$2,023 has been entered by Robert F. Wilkenson against the Owen Paper Company, Housatonic, Mass. The statement of the company, as shown in certificate filed with Massachusetts Secretary of State, is as follows:

ASSETS.	
Real estate.....	\$45,000.00
Machinery.....	15,000.00
Cash and debts receivable.....	96,665.11
Stock and material.....	76,486.25
Total.....	\$323,151.36
LIABILITIES.	
Capital stock.....	\$50,000.00
Debts.....	70,077.19
Balance profit and loss.....	100,000.00
Res. for deprec.....	3,074.17
Total.....	\$323,151.36

A circular has been issued by the American Paper Manufacturers' Association that a hearing in regard to the subject of infection by rags will be held in Washington on December 14 at 10 o'clock A. M., before Dr. Walter Wyman, supervising surgeon general of the Marine Hospital Service, at which it is expected that the Secretary of the Treasury will be present.



H. H. WESTINGHOUSE.

WM. LEE CHURCH.

WALTER C. KERR.

ISAAC H. DAVIS.

WESTINGHOUSE, CHURCH, KERR & CO., ENGINEERS.

NEW YORK: 17 Cortlandt Street.

ST. LOUIS: Commercial Building.

CHICAGO: 156 & 158 Lake Street.

PITTSBURGH: Westinghouse Building.

BOSTON: 620 Atlantic Avenue.

MINNEAPOLIS: Beery Block.

Represented in PHILADELPHIA by M. R. MUCKLE, Jr., & CO.

WESTINGHOUSE ENGINES.

The Compound Automatic Engine.

The only Engine ever built which will give practically Uniform Economy under widely Variable Loads, whether Condensing or Non-Condensing.

The Standard Automatic Engine.

The Junior Automatic Engine.

THE RONEY MECHANICAL STOKER AND SMOKELESS FURNACE.

Coal and Ash Handling Machinery FOR LARGE PLANTS.

THE STEAM LOOP.

For Separating and Returning Condensation and Primage.

Contractors for Heavy Power Plants.

Contractors for Subdivided Power Plants.

Contractors for the Renovating of Existing Power Plants for the Improvement of Economy.

A Modern Boiler Plant.

REDUCING THE COST OF A POUND OF WATER
EVAPORATED INTO STEAM—HOW IT
HAS BEEN COMPLETELY CON-
SIDERED AND PRACTICALLY MET.

There has been no lack of painstaking design in the direction of steam motors. The perfecting of the steam engine has been a favorite occupation of engineers, and progress has been steady from the days of the plain slide valve engine, through the various forms of automatic cut-offs, and so on up to compound and triple expansion engines. Innumerable devices for saving in the use of steam have been developed, and the manufacturer, as well as the engineer, never seems to tire of additional investment if a reasonable result can be obtained therefrom in the way of economy. The boiler room, however, being less attractive, or very possibly for some better reason, has failed to receive the same measure of attention, and as a result the economies in the cost of making steam are not nearly so marked, nor the general practice in nearly so well settled a condition. It is perfectly obvious that the cost of making steam is parallel in importance to the cost of using it, and the minimum of cost in the production of power is only possible when both factors are given the benefit of equal skill. The makers of boilers have indeed brought to bear a vast amount of excellent work in the development of the boiler itself, both as relates to its structural features and in large measure to its intrinsic fuel duty. Other attempts toward boiler room economy in the matters of combustion, manipulation, &c., have been in the nature of more or less sporadic experiment, while the cost of handling the coal and ashes, amounting often to many thousand tons per annum, has been practically ignored altogether.

The manufacturing public will be interested in the accompanying engravings of a strictly modern boiler plant which has been designed and constructed for Curtis Davis & Co., manufacturers of soap and glycerine, Cambridgeport, Mass., by Westinghouse, Church, Kerr & Co., of Boston, the detail work being carried out by William R. Roney, the engineer of their stoker department. Carte blanche was given the engineers to design a boiler house to contain every practical element of economy which could bear upon the sum total of the cost of making steam, they being limited only to the horizontal return tubular type of boiler by certain considerations outside of economy. In the carrying out of this work the ornamental side of the problem was not forgotten, and the architectural design of the boiler house was prepared by Hartwell & Richardson, of Boston. It is worthy of emphasis that the owners of this plant have set a creditable example to manufacturers in general in providing a building which shall not only be adapted to the matter of fact work to be done in it, but shall in its mere external appearance represent with

NOW READY.

LOCKWOOD'S
DIRECTOR OF
Paper and
Stationery Trades
FOR 1892-3.

HOWARD LOCKWOOD & CO.,
126 and 128 Duane St., New York.

H. F. WIECKERT
25 Water St.,
NEENAH, WIS.
MANUFACTURER OF
COGS
AND ALL KINDS OF
MILL WORK.

You will save money if you have no cog pattern by drawing a cog out of a wheel, marking the exact width on the face cut and the exact thickness on the end cuts of this diagram and sending to me. If you want one key sent only, mark off one when you send card for pattern. I carry a complete stock of seasoned Hard Maple and can make Cogs on short notice. When you write for price give width and thickness of larger end. Write for pattern cards.

THE LILLIE MULTIPLE-EFFECT EVAPORATORS FOR SODA LIQUORS OF PULP MILLS.

Highest Fuel Economy. Greatest Density of Product obtained in Actual Practice.

MADE BY THE SUGAR APPARATUS MANUFACTURING CO., 328 Chestnut Street, Philadelphia.

44,000,000 GALLONS OF WATER A DAY

Are Purified in PAPER and PULP MILLS by the use of the

A PAPER MAKER'S INVENTION FOR PAPER MAKERS' USE.

WARREN FILTER,

MANUFACTURED BY
CUMBERLAND MFG. CO., Boston.

fitness the dignity which attaches to the large manufacturing interests of a prosperous country. The building is of pressed brick with trimmings of pink Milford granite. The roof is of iron trusses, covered with slate and lined on the inside with wire lath and plaster, for the purpose of preventing condensation. The fire room floor is of concrete. An annex to the building contains a scale room for tallying the weight of coal, and a complete washroom for the fireman, who has now become a gentleman of leisure.

Passing to the operative portion of the plant, it will, when completed, consist of eight horizontal return tubular boilers of 125 nominal horse power each, to carry a working pressure of 130 pounds. These boilers are arranged in two batteries of four each in either end of the building (one battery is now in operation), the space between being utilized as a pump room. Following the progress of the coal, after it is weighed it is dumped on to a grating at the end of the boiler house, shown in the general view. The large lumps are easily broken by the teamster, the grating serving as a screen to reduce the coal to a uniform maximum size. From the grating the coal falls into a bucket elevator carrying it to an overhead conveyor extending the entire length of the boiler house, from which it distributes into square iron bunkers having hopper bottoms. The bunkers are supported on iron girders in front of and above the boilers. From the bunkers the coal flows by gravity through swivel spouts to the hoppers of the stokers.

Each boiler is equipped with a Roney mechanical stoker, with which the public is already familiar. The stoker furnishes a continuous supply of coal to the furnace at a slow rate of feed; the quantity of coal

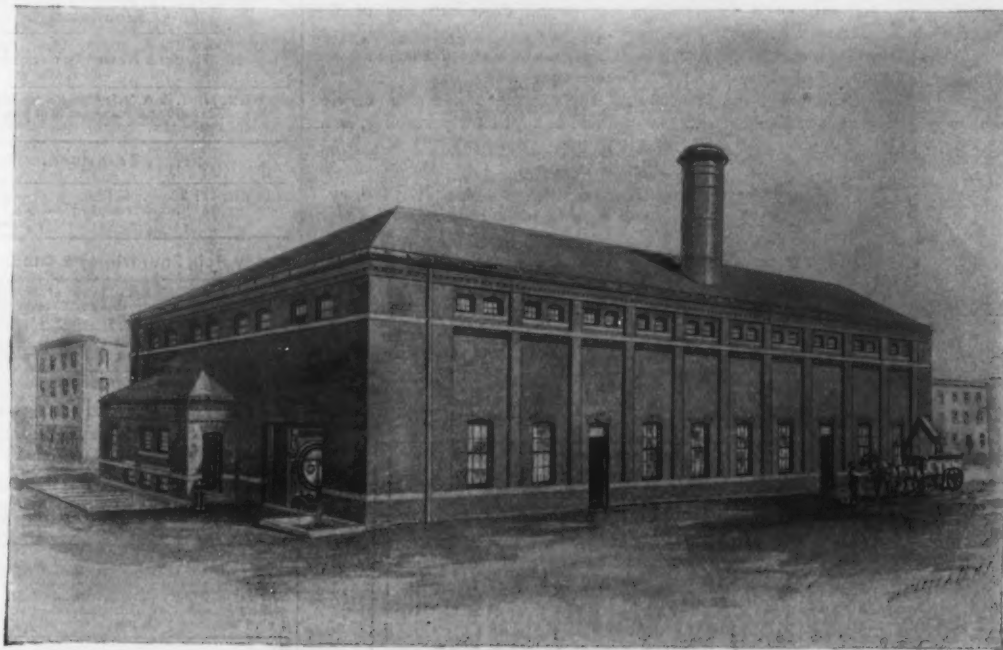
and its distribution being regulated at will by hand wheel adjustments on the traverse motion. The power to operate the entire battery of stokers is a small engine carried

through perforated channels in the firebrick tile. This portion of the device constitutes a strictly smokeless furnace, the result being obtained, not by concealing or con-

extremely sensitive. After leaving the coking arch the coal is slowly worked down over the rocking grates into the hot-test portion of the fire, and when consumed

a spout into carts for removal. Thus, from the time the coal is first dumped by the teamster until the ashes are in the cart, there is practically no manual labor employed, and the duties of the fireman are reduced essentially to watchfulness and supervision only. One man constitutes the force of firemen and runs the entire plant.

A most interesting portion of the plant is the means of securing controllable draft. The usual expensive chimney stack is conspicuous by its absence, and in its place will be found a steel stack 72 inches in diameter, extending 17 feet above the ridge of the roof and showing a total height to the top of about 55 feet above the ground. This stack is lined with one course of brick merely to prevent rust, and is finished with ornamental top similar to the familiar shape on the smoke stacks of the Pennsylvania Railroad locomotives. The stack, having no functions, so far as the production of draft is concerned, is only of a length sufficient to deliver the gases above the roof. The stack is supported on an entablature, which in turn is carried on "I" beams over the boiler room. On these "I" beams is a large slow running exhaust fan whose outlet discharges directly up into the bottom of the stack. The waste gases from the furnace pass through a Lowcock economizer, which opens into the suction of the fan. The economizer is carried on iron columns and the whole system is therefore overhead and out of the way, leaving a clear floor space below. A by-pass damper is provided on each side of the economizer, so that the draft can be direct to the stack in case the economizer is temporarily out of service for repairs. A steam cone nozzle may be set in the base of the stack as a relay in the remote contingency of any necessity for overhauling the fan. The proba-



BOILER HOUSE FOR CURTIS, DAVIS & CO., CAMBRIDGEPORT, MASS.

on a bracket at one end of each battery and driving a slow moving eccentric shaft.

The action of the stoker is first to liberate the free gases and partially coke the coal on a dead plate underneath the coking arch, in connection with an indraft of hot air

suming the smoke, but by actually preventing it by complete combustion from the start. Right here lies a large portion of the economy due to mechanical stoking, to say nothing of the extermination of the smoke nuisance to which most cities are

the ash and cinder falling on the dumping grates is dropped into the ashpit. From the ashpit the ashes fall into a screw conveyor, which carries them to one end of the building, where they are elevated into an ash bin and discharged as required through

THE UNITED PAPER COMPANY,

General Offices, TIMES BUILDING, Rooms 45 and 46, NEW YORK,

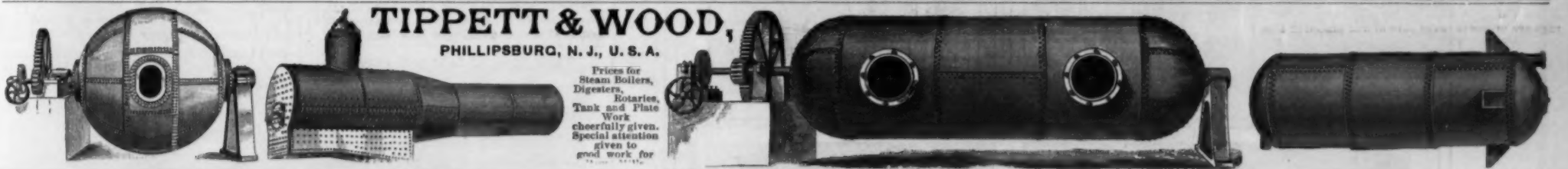
Owners of a large number of Tissue Paper Mills, manufacturing all kinds and grades of

WHITE, COLORED AND MANILLA TISSUE PAPERS.

FRUIT, ROLL, TOILET, RAILROAD AND PARCHMENT COPYING TISSUES. ALSO
WHITE AND MANILLA TISSUES FOR WAXING PURPOSES.

SUPERCALENDERED WHITE COPYING PAPERS A SPECIALTY.

OUR EXTENSIVE CAPACITY ENABLES US TO FILL ORDERS PROMPTLY.



THE RUSSELL CEMENT LINED DIGESTER.

The **Russell Patent** covers every description of Acid Proof Cement Lining and can be applied to any form of Sulphite Digester in use. This Lining for Sulphite Digesters is now in constant operation in many of the largest mills in the country, **more than thirty Digesters being lined with the RUSSELL CEMENT LINING**, and in every case it has given entire satisfaction and proved itself to be a **Perfect Lining**.

IT IS THOROUGHLY ACID PROOF.

IT IS EASILY APPLIED.

IT IS DURABLE AND IMPROVES RATHER THAN DETERIORATES BY USE.

IT PREVENTS RADIATION OF HEAT, AND THUS EFFECTS GREAT SAVING OF STEAM AND INSURES EVEN COOKING OF ENTIRE CONTENTS.

IN THE "ONE METAL" DIGESTER IT PREVENTS CORROSION AND THE DANGEROUS EXPANSION OF THE BRONZE.

Manufacturers of Sulphite Pulp and those intending to build Sulphite Mills are invited to examine into the merits of the **Russell Cement Lining**. Correspondence solicited. All inquiries cheerfully answered.

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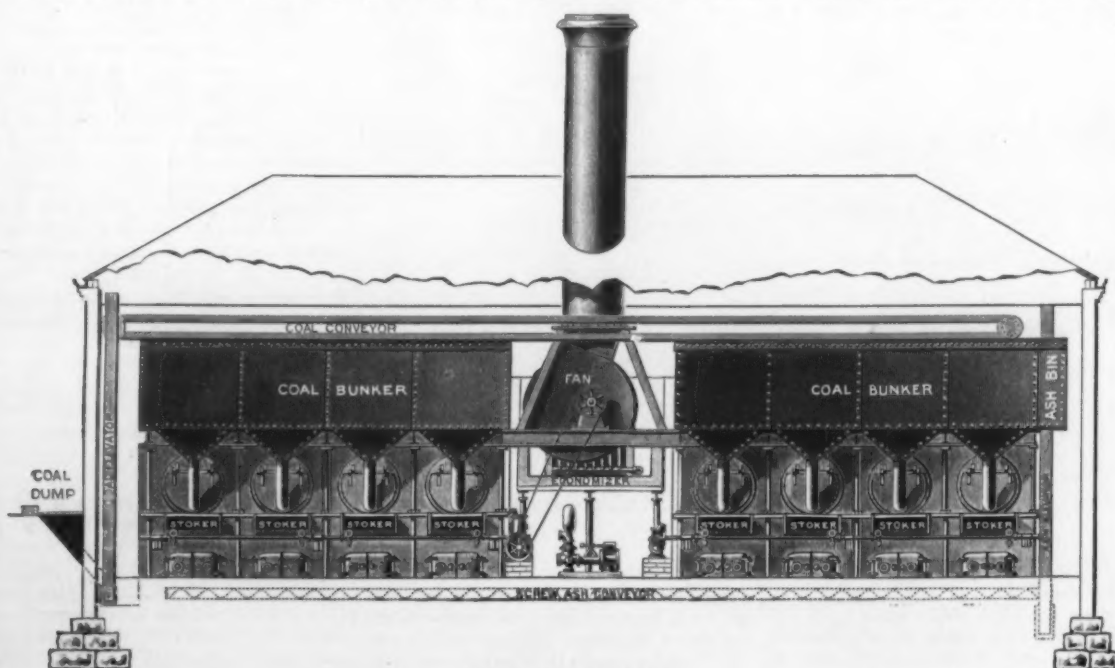
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bility of repairs is best judged by the fact that the usual speed of the fan in ordinary service is from forty to fifty turns per minute, and when driven at the slow speed of eighty turns per minute it is sufficient to cause a draft adequate to the most intense combustion. The motive power of the fan is a small Westinghouse engine, nominally of 10-horse power, but in fact running at so slow a speed and under such a close throttle as to develop only a

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to extract all the available heat from the waste gases and return them into the boiler. The temperature of the uptake is about 100°, the temperature of the feed water leaving the economizer being upward of 300°, and representing an amount of heat saved, which would otherwise be wasted up the stack as the only means of producing a natural draft. A moment's reflection will show the comparative value of the heat

line, was also made a part of the duty of the engineers, Westinghouse, Church, Kerr & Co. The pump room is located, as before mentioned, between the batteries of boilers underneath the economizer, and in it are two duplex pumps of a capacity of 500 gallons per minute each. These pumps are controlled by pressure regulators, and are so connected that while one of them is furnishing the ordinary elevator service the second one is kept slowly moving, so as



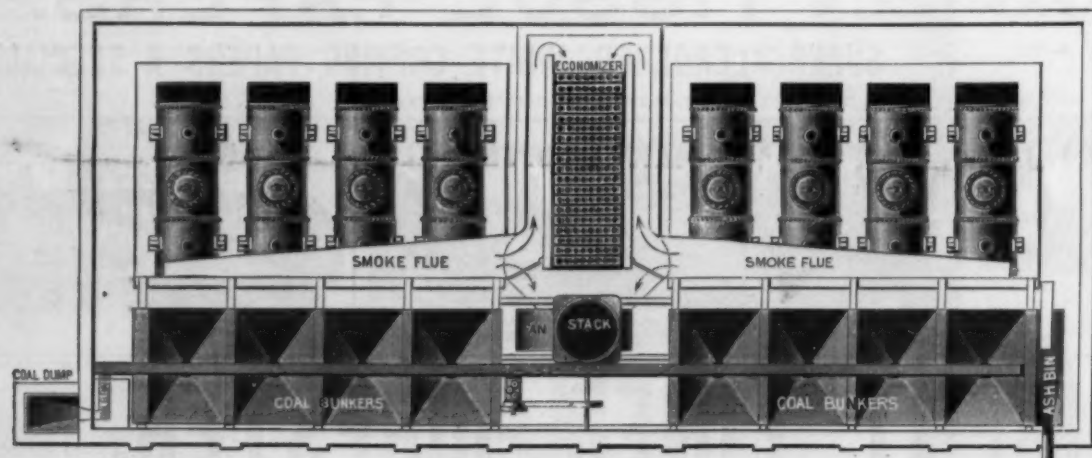
ELEVATION OF PLANT.

thus returned to the boiler, as against the insignificant amount of steam required to run the slow moving fan. The mechanical exhaust draft in this case was not a part of the original scheme, but was finally adopted when it was discovered that the cost of the piling alone for a suitable chimney stack was more than the entire cost of the mechanical draft system, leaving the eco-

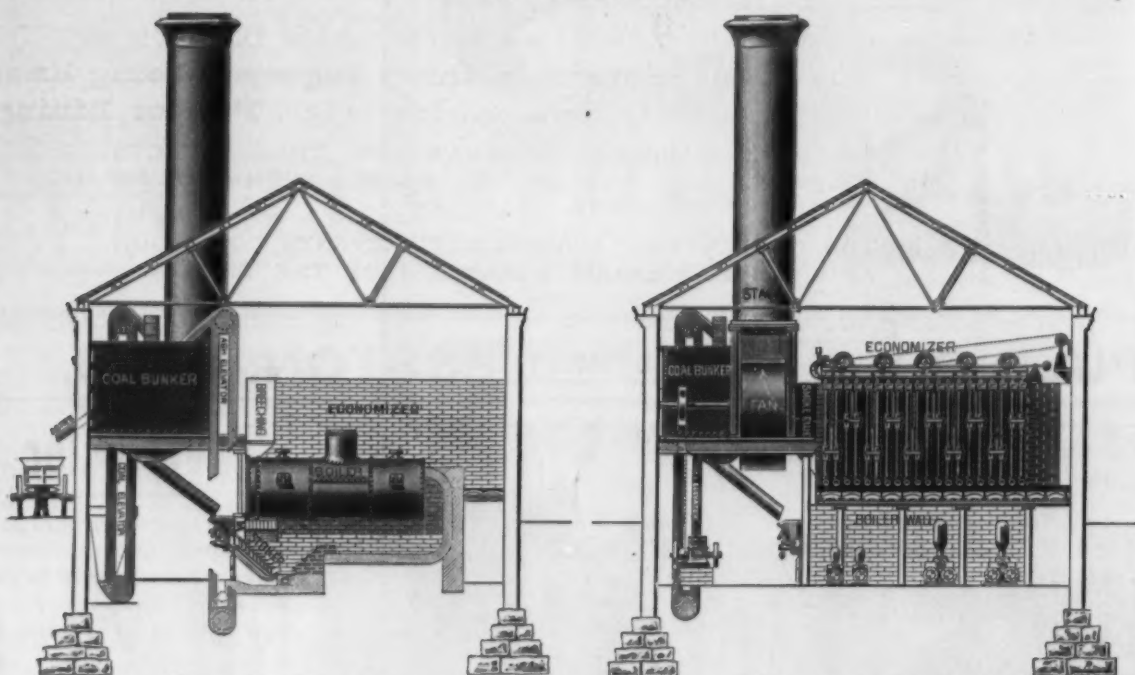
to be in condition for instantaneous fire service. The work of these pumps is alternated daily, and in case of fire both can be concentrated immediately on the fire lines. In the same pump room are double boiler feed pumps, each one adequate to the entire capacity of the plant. All the hot water lines and fittings are of brass, and

to be in condition for instantaneous fire service. The work of these pumps is alternated daily, and in case of fire both can be concentrated immediately on the fire lines. In the same pump room are double boiler feed pumps, each one adequate to the entire capacity of the plant. All the hot water lines and fittings are of brass, and

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PLAN OF BOILER ROOM.



SECTION THROUGH STOKER.

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chimney costing ten times as much to build, and additionally possesses the feature which no natural draft enjoys, of absolute flexibility in meeting sudden demands of steam. The fireman is thus rendered independent of weather conditions, and has nothing to fear from a dirty fire after a long run, or from any of the emergencies which may throw an excessive duty upon his boiler plant without warning. He has the fire at all times wholly within his control, while at the same time the regular service is performed under the most perfect automatic regulation.

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nominal value of the economizer as a clear gain.

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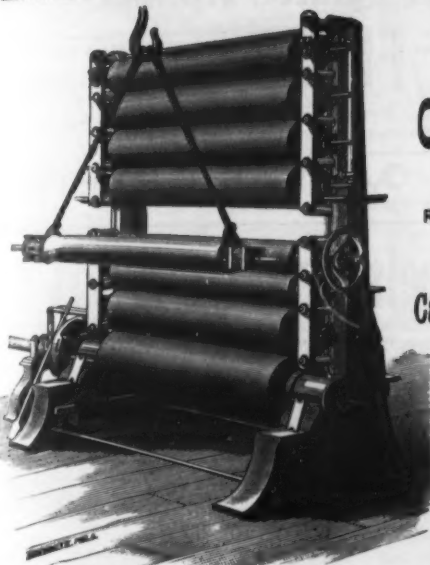
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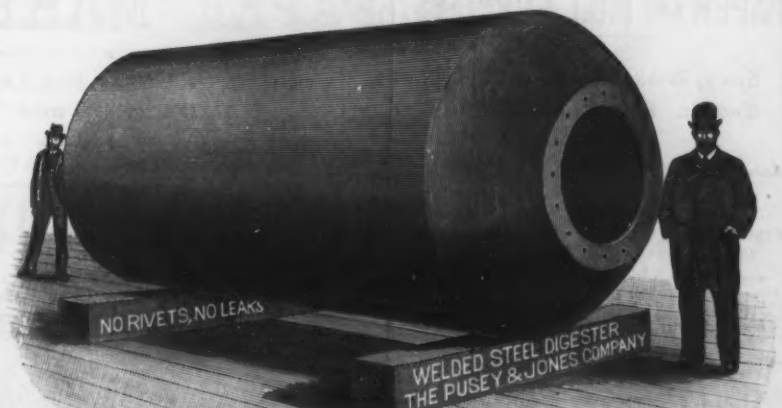
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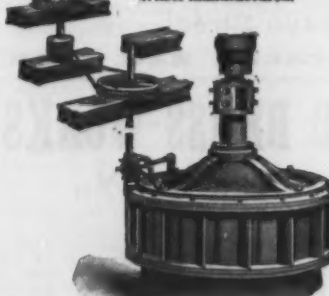
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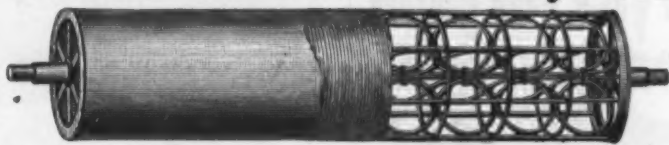
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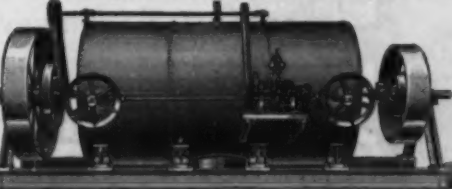
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